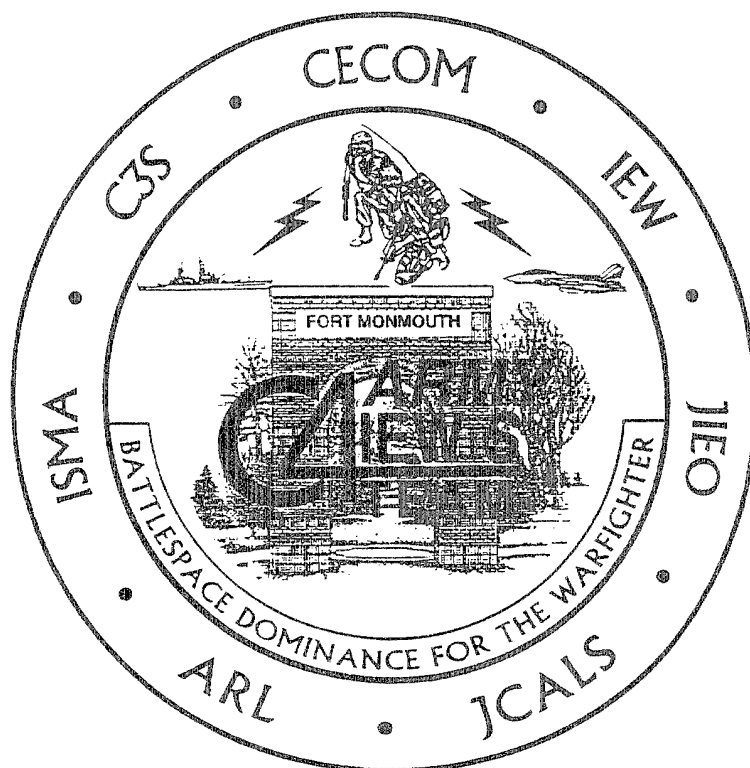


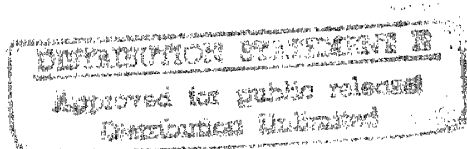
UNITED STATES ARMY
COMMUNICATIONS-ELECTRONICS COMMAND
Fort Monmouth, New Jersey



ADVANCE PLANNING
BRIEFING FOR INDUSTRY

"Building Tomorrow's Army Today,
Sustaining Today's Army Everyday"

Ocean Place Hilton Resort and Spa
August 6-7, 1996



DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

29 July 96

MEMORANDUM FOR Director, Program Analysis and Evaluation

ATTN: AMSEL-PE-OD

SUBJECT: Clearance of Information for Public Release (Briefing)

TITLE: Level I Advance Planning Briefing for Industry (APBI)

1. The above mentioned Briefing has been cleared by this office with the following determination:

--X-a. No further clearance is necessary unless substantial changes/additional information is incorporated during future revision.

----b. Clearance of the paper for this occasion does not constitute approval for other publications/presentations. Requests for future dissemination must be submitted through the Public Affairs Office for clearance.

----c. Clearance of the abstract only. Clearance of the abstract does not constitute clearance of the completed paper which must be submitted through channels to the Public Affairs Office.

----d. In accordance with DOD Regulation 5230.25, Distribution Statement "D" is imposed limiting disclosure to Department of Defense and DOD contractors only. Other requests must be submitted through channels to the Public Affairs Office.

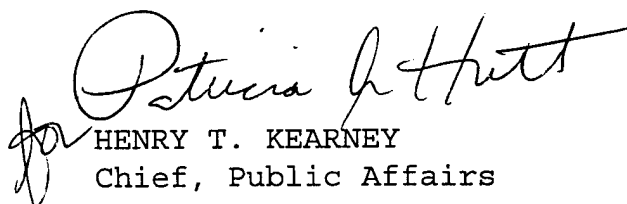
2. The POC for this office is Ms. Patricia A. Hutt, X21258.

3. CECOM Bottom Line: THE SOLDIER.

2 Encls

1. SEL Form 1012

2. Manuscript


HENRY T. KEARNEY
Chief, Public Affairs



DEPARTMENT OF THE ARMY

HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
AND FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703-5000



REPLY TO
ATTENTION OF

AMSEL-PE-OD

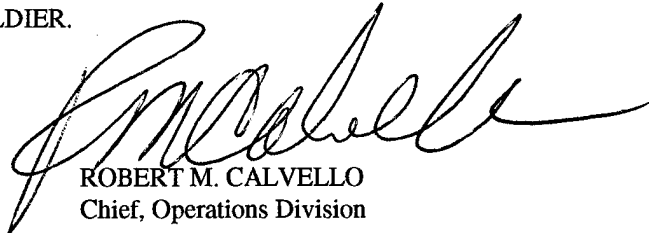
MEMORANDUM FOR Ms. Barbara Lesser, Defense Technical Information Services,
ATTN: DTIC-OCC, 8725 John J. Kingman Road, Suite 0944,
Fort Belvoir, VA 22060-6218

14 AUG 1996

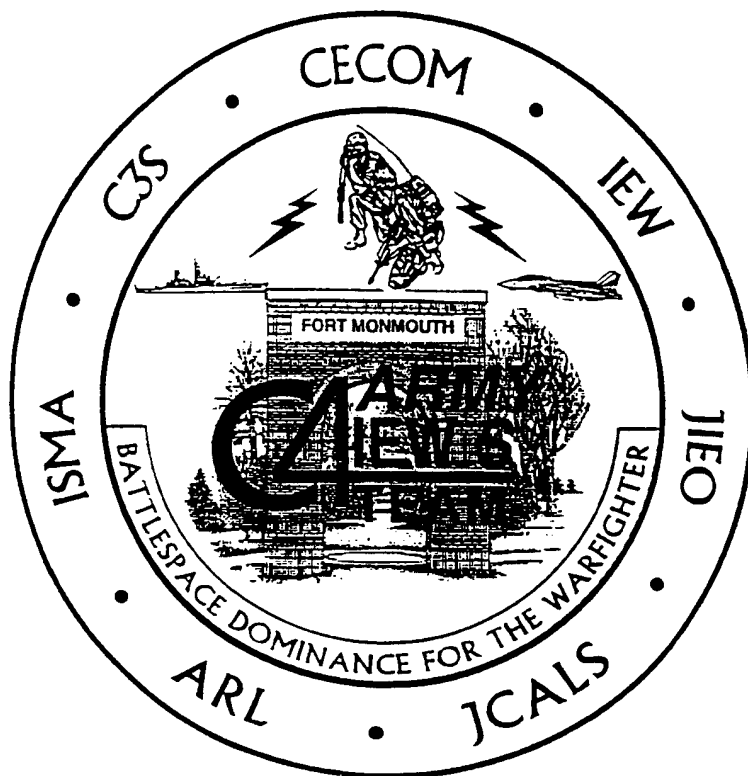
SUBJECT: Proceedings Book for Advance Planning Briefing for Industry (APBI)

1. On 6-7 Aug 96, a Level I APBI entitled, "Building Tomorrow's Army Today, Sustaining Today's Army Everyday", was held at the Ocean Place Hilton Resort and Spa, Long Branch, New Jersey. Request that the enclosed copy (Encl 1) of the proceedings be microfiched and catalogued. These proceedings have been cleared by our Public Affairs Office (Encl 2).
2. When an accession number has been assigned to this document, request that you call Denise Ellison, DSN 992-8674/Comm. 908-532-8674, so that this office can relay the information upon request to industry representatives.
3. CECOM Bottom Line: THE SOLDIER.

2 Encls


ROBERT M. CALVELLO
Chief, Operations Division

UNITED STATES ARMY
COMMUNICATIONS-ELECTRONICS COMMAND
Fort Monmouth, New Jersey



ADVANCE PLANNING
BRIEFING FOR INDUSTRY

"Building Tomorrow's Army Today,
Sustaining Today's Army Everyday"

Ocean Place Hilton Resort and Spa
August 6-7, 1996

19960821 066

DTIC QUALITY INSPECTED 1

NOTICE

This publication contains the briefings presented during this Advance Planning Briefing for Industry (APBI). Following the APBI, you may obtain a Proceedings Book for a minimum fee by contacting the Defense Technical Information Center (DITCH). The telephone number is (800) 225-3842 (Option 5).

We hope that the above publication proves beneficial to your long-range planning efforts. If you have any additional questions and/or suggestions, please contact the Program Analysis and Evaluation Directorate, AMSEL-PE-OD, ATTN: Mari Aufseeser, (908) 532-5054.



DEPARTMENT OF THE ARMY

HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
AND FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703-5000



REPLY TO
ATTENTION OF

Office of the Commanding General

Ladies and Gentlemen:

On behalf of the Army C4IEW and Sensors Team, I am pleased to present these proceedings of the 1996 Advance Planning Briefing for Industry (APBI) entitled "Building Tomorrow's Army Today, Sustaining Today's Army Everyday." The objective of this publication is to provide industry with a comprehensive overview of our research and development programs, sustainment efforts and corresponding contract opportunities available to industry within the next five years.

The goal of this conference is to discuss emerging technologies and enable industry to be more responsive to Army requirements and technological needs. I believe open communications as well as continued cooperative efforts between the Department of the Army and industry will result in superior equipment in the hands of our warfighters.

I welcome your participation in our APBI program.

Sincerely,

Gerard P. Brohm
Major General, U.S. Army
Commanding

DISCLAIMER

The use of trade names in this report does not constitute official endorsement of any products. This report may not be cited for purpose of advertisement.

The information provided is accurate as of the time of publication, and may be subject to change.

THE OVERALL CLASSIFICATION
OF THIS PUBLICATION
IS UNCLASSIFIED

ADVANCE PLANNING BRIEFING FOR INDUSTRY

"BUILDING TOMORROW'S ARMY TODAY, SUSTAINING TODAY'S ARMY EVERYDAY"

AUGUST 6-7, 1996
OCEAN PLACE HILTON RESORT AND SPA
LONG BRANCH, NEW JERSEY

MEETING CHAIRMAN
MG GERARD P. BROHM
COMMANDING GENERAL, CECOM AND FORT MONMOUTH

AGENDA

MONDAY, AUGUST 5, 1996

1800-2000 CHECK-IN - HILTON

TUESDAY, AUGUST 6, 1996

0630 CHECK-IN

0800 ADMINISTRATIVE REMARKS

0810 WELCOMING REMARKS
MG Gerard P. Brohm
Commanding General, CECOM

0840 GUEST SPEAKER
MG James J. Cravens, Jr.
Deputy Chief of Staff for Combat Development
U.S. Army Training and Doctrine Command

0920 BREAK

SESSION I: ACQUISITION STREAMLINING INITIATIVES

0940 SESSION OVERVIEW AND INTRODUCTION
ELECTRONIC DATA INTERCHANGE
UPDATE OF 1995 LEVEL I APBI (MAY 95) CONTRACT OPPORTUNITIES
MODERATOR
Mr. Edward G. Elgart
Director, CECOM Acquisition Center

1015 INTELLIGENT PRODUCT DATA
Mr. Gary Salomon
Chief, Engineering Data Management Branch
Logistics and Engineering Operations Directorate, CECOM

1030 ACQUISITION STREAMLINING AND REFORM
Mr. Edward T. Bair
Deputy Program Executive Officer, Intelligence and Electronic Warfare

1100 STREAMLINED ACQUISITION OF THE SECURE MOBILE ANTI-JAM RELIABLE
TACTICAL-TERMINAL (SMART-T)
Mr. Paul Kirzow
Chief, Operations Division
Program Executive Office, Command, Control and Communications Systems

1115 QUESTIONS AND ANSWERS

1130 LUNCH

SESSION II: BATTLEFIELD SUSTAINMENT

1300 SESSION OVERVIEW AND INTRODUCTION
MODERATOR
Mr. Anthony A. LaPlaca
Acting Director, CECOM Logistics and Readiness Center

1310 OPERATING AND SUPPORT COST REDUCTION (OSCR) PROGRAM
Mr. Giuseppe Sgroi
Value Engineering Program Manager
Logistics and Engineering Operations Directorate, CECOM

1330 NEW FOREIGN MILITARY SALES (FMS) BUSINESS OPPORTUNITIES
Mr. Eugene P. Bennett
Director, Security Assistance Management, CECOM

1350 SOFTWARE ENGINEERING DIRECTORATE OMNIBUS CONTRACTS
Mr. Eugene Boyle
Contract Manager
Software Engineering Directorate, CECOM

1405 QUESTIONS AND ANSWERS

1415 BREAK

SESSION III: STRATEGIC AND SUSTAINING BASE COMMUNICATIONS

1435 SESSION OVERVIEW AND INTRODUCTION
MODERATOR
Mr. Thomas J. Michelli
Director, U.S. Army Information Systems Management Activity

1455 DIGITAL SWITCHED SYSTEMS MODERNIZATION PROGRAM
CPT Richard Lommock
Project Officer, Defense Communications and Army Switched Systems

1505 PENTAGON RENOVATION INFORMATION MANAGEMENT AND
TELECOMMUNICATIONS PROJECT
COL Scipio de Kanter
Project Manager, Information Management & Telecommunications, Pentagon
Renovation

1520 SMALL COMPUTER PROGRAM
 o ARMY WORKSTATION-2 (WS-2)
 o ARMY PERSONAL COMPUTER-3 (PC-3)
 o ARMY PORTABLE COMPUTER-3 (PORTABLE-3)
 o SMALL MULTIUSER COMPUTER-III (SMC-III)
 o STANDARD SYSTEMS TECHNOLOGY SUPPORT-1 (SSTS-1)
 LTC Mary Fuller
 Product Manager, Small Computer Program

1600 QUESTIONS AND ANSWERS

1630 RECEPTION

WEDNESDAY, AUGUST 7, 1996

0800 ADMINISTRATIVE REMARKS

**SESSION IV: INTELLIGENCE AND ELECTRONIC WARFARE AND
SENSORS TECHNOLOGIES AND MODERNIZATION**

0805 SESSION OVERVIEW AND INTRODUCTION
 MODERATOR
 Mr. Edward T. Bair
 Deputy Program Executive Officer, Intelligence and Electronic Warfare

PM PROGRAMS AND FUTURE TECHNOLOGIES BUSINESS OPPORTUNITIES

0820 INTELLIGENCE AND ELECTRONIC WARFARE TECHNOLOGY
 o INTERCEPT TECHNOLOGY
 o ELECTRONIC WARFARE TECHNOLOGY
 o TACTICAL INTELLIGENCE DATA FUSION TECHNOLOGY
 o INFORMATION OPERATIONS SPECIAL PROJECT OFFICE
 Mr. Stephen T. Makrinos
 Special Assistant
 Intelligence and Electronic Warfare Directorate, CECOM

0900 FIREFINDER PRE-PLANNED PRODUCT IMPROVEMENT (P3I)
 LTC Thomas M. Cole
 Product Manager, FIREFINDER

0915 QUESTIONS AND ANSWERS

0925 BREAK

0945 COUNTERMINE EFFORTS
 o LIGHTWEIGHT, AIRBORNE MULTI-SPECTRAL COUNTERMINE
 DETECTION SYSTEM
 o MINE HUNTER/KILLER
 Mr. James Campbell
 Project Engineer
 Night Vision and Electronic Sensors Directorate, CECOM

- 1010 MULTI-FUNCTION SENSOR SUITE (MFSS)
 Mr. Steve Holt
 Project Engineer
 Night Vision and Electronic Sensors Directorate, CECOM
- 1025 NIGHT VISION & ELECTRONIC SENSOR SYSTEMS
 o LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM (LRAS3)
 o THERMAL OMNIBUS
 oo DRIVER'S VISION ENHANCER (DVE)
 oo THERMAL WEAPONS SIGHT (TWS)
 o TARGET LOCATION AND OBSERVATION SYSTEM (TLOS)
 Mr. Brian Murray
 Chief, Logistics Branch
 Project Manager, Night Vision/Reconnaissance Surveillance and Target Acquisition
- 1115 QUESTIONS AND ANSWERS
- 1130 LUNCH

**SESSION V: COMMAND, CONTROL AND COMMUNICATIONS
TECHNOLOGIES AND MODERNIZATION**

- 1300 SESSION OVERVIEW AND INTRODUCTION
 MODERATOR
 Mr. Robert R. Lehnes
 Deputy Program Executive Officer, Communications Systems
 Program Executive Office, Command, Control and Communications Systems
- PM PROGRAMS AND FUTURE TECHNOLOGIES BUSINESS OPPORTUNITIES
- 1310 RDT&E/ACQUISITION IN SUPPORT OF WARFIGHTER INFORMATION
 NETWORK (WIN)
 COL Kenneth Thomas
 Acting Director, Space and Terrestrial Communications, CECOM
- 1340 IMPROVED SPECTRUM EFFICIENCY MODELING AND SIMULATION (ISEMS)
 Mr. Kurt Kovach
 Chief, C3I Modeling/Simulation Architecture Division
 Command, Control and Systems Integration Directorate, CECOM
- 1355 UNIVERSAL MODEM SYSTEM
 Mr. Jay Hicks
 Deputy Product Manager, Universal Modem
 Project Manager, Satellite Communications
- 1410 AN/GSC-52 MODERNIZATION PROGRAM
 Mr. William T. Anderson
 Product Manager, DSCS Terminal
 Project Manager, Satellite Communications
- 1425 HIGH CAPACITY LINE OF SIGHT (HCLOS) RADIO SYSTEM
 Mr. Kenneth Chaney
 Product Leader
 Project Manager, Joint Tactical Area Communications Systems

1440 QUESTIONS AND ANSWERS

1450 BREAK

1500 EXECUTIVE PANEL

MG Gerard P. Brohm
Commanding General
U.S. Army Communications-Electronics Command

Mr. Robert F. Giordano
Director
CECOM Research, Development and Engineering Center

Mr. Edward G. Elgart
Director
CECOM Acquisition Center

Mr. Edward T. Bair
Deputy Program Executive Officer
Intelligence and Electronic Warfare

Mr. Thomas J. Michelli
Director
U.S. Army Information Systems Management Activity

Mr. Robert Lehnies
Deputy Program Executive Officer, Communications Systems
Program Executive Office, Command, Control and Communications Systems

Mr. Anthony A. LaPlaca
Acting Director
CECOM Logistics and Readiness Center

1600 ADJOURN

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WELCOMING REMARKS

MG GERARD P. BROHM

COMMANDING GENERAL
CECOM

NOTES

GUEST SPEAKER

MG JAMES J. CRAVENS, JR.

**DEPUTY CHIEF OF STAFF FOR
COMBAT DEVELOPMENT**

**U.S. ARMY TRAINING AND DOCTRINE
COMMAND**



NOTES

SESSION I

ACQUISITION STREAMLINING INITIATIVES

MODERATOR

MR. EDWARD G. ELGART

DIRECTOR
CECOM ACQUISITION CENTER

SESSION I

OVERVIEW/EDI/UPDATE MAY 95 APBI

MR. EDWARD G. ELGART

INTELLIGENT PRODUCT DATA

MR. GARY SALOMON

ACQUISITION STREAMLINING REFORM

MR. EDWARD T. BAIR

STREAMLINED ACQUISITION OF THE SMART-T

MR. ROBERT LEHNES

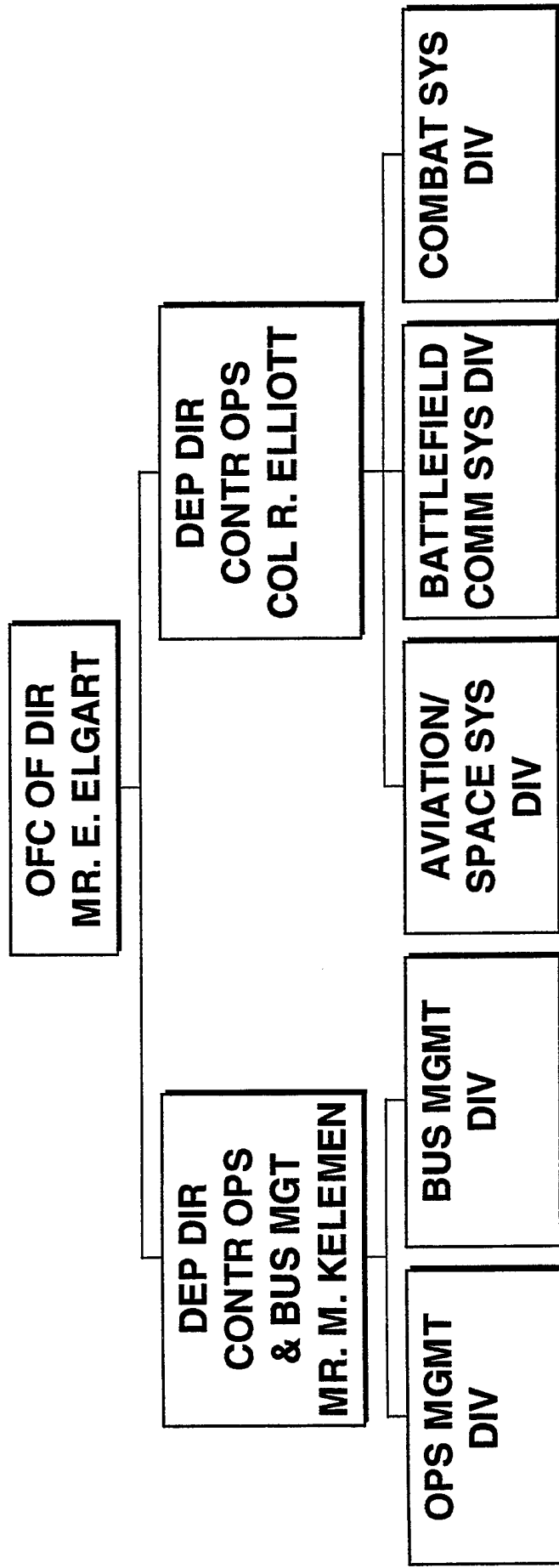
ACQUISITION STREAMLINING OVERVIEW



MR. EDWARD G. ELGART
DIRECTOR,
CECOM ACQUISITION CENTER

UNCLASSIFIED

CECOM ACQUISITION CENTER



COMING IN FY97:

ISSAA

ISEC

ACQUISITION STREAMLINING INITIATIVES

ORALS

**TOTAL OR PARTIAL
TECHNICAL PROPOSALS**

OMNIBUS

**125 SERVICE
CONTRACTS REDUCED
TO 22**

ACQUISITION STREAMLINING

INITIATIVES

**FLEXIBLE LONG TERM
IDIQ CONTRACTS**

BASKET COMMODITIES

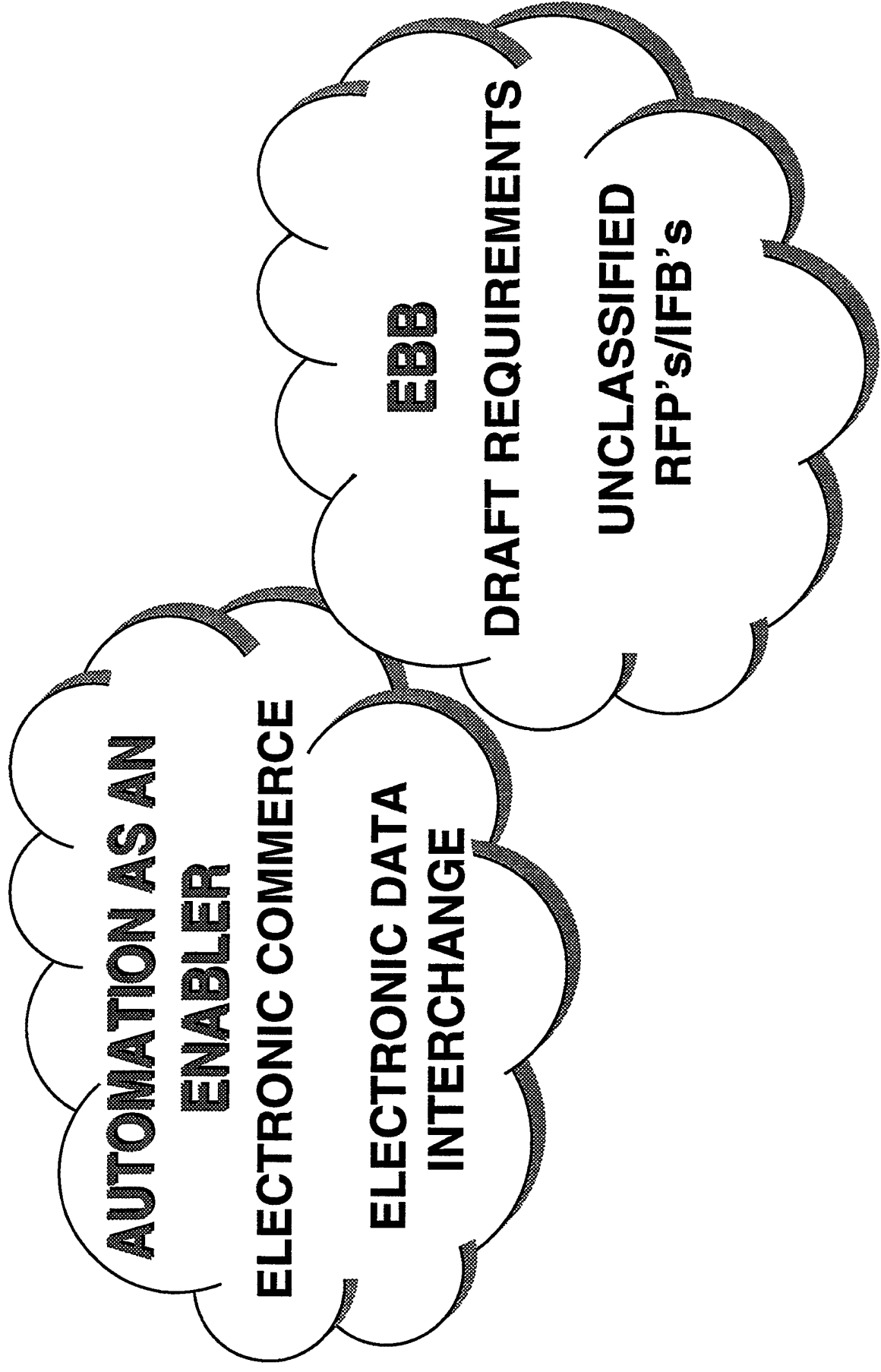
**INTEGRATED PROCESS
TEAMS**

CREDIT CARDS

MICRO-PURCHASES

UNDER \$2,500

ACQUISITION STREAMLINING INITIATIVES

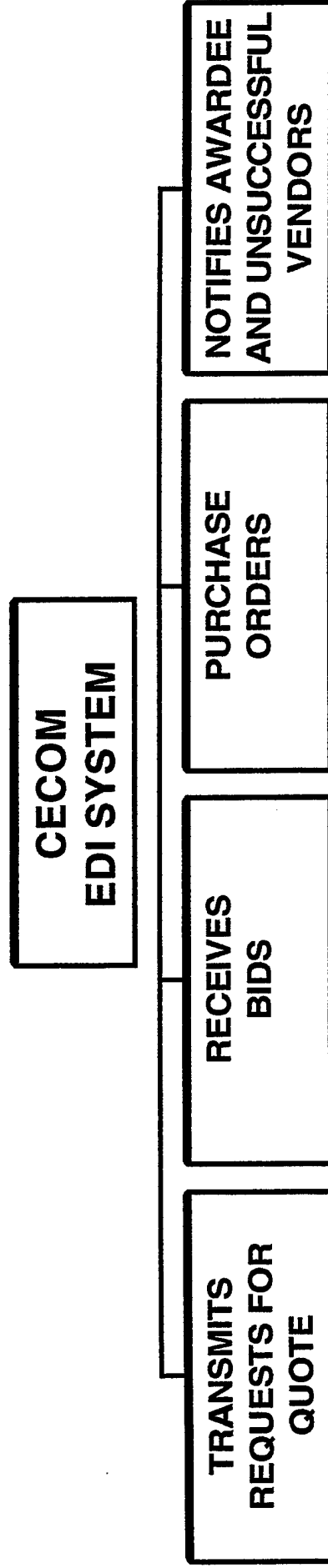


ELECTRONIC DATA INTERCHANGE (EDI)

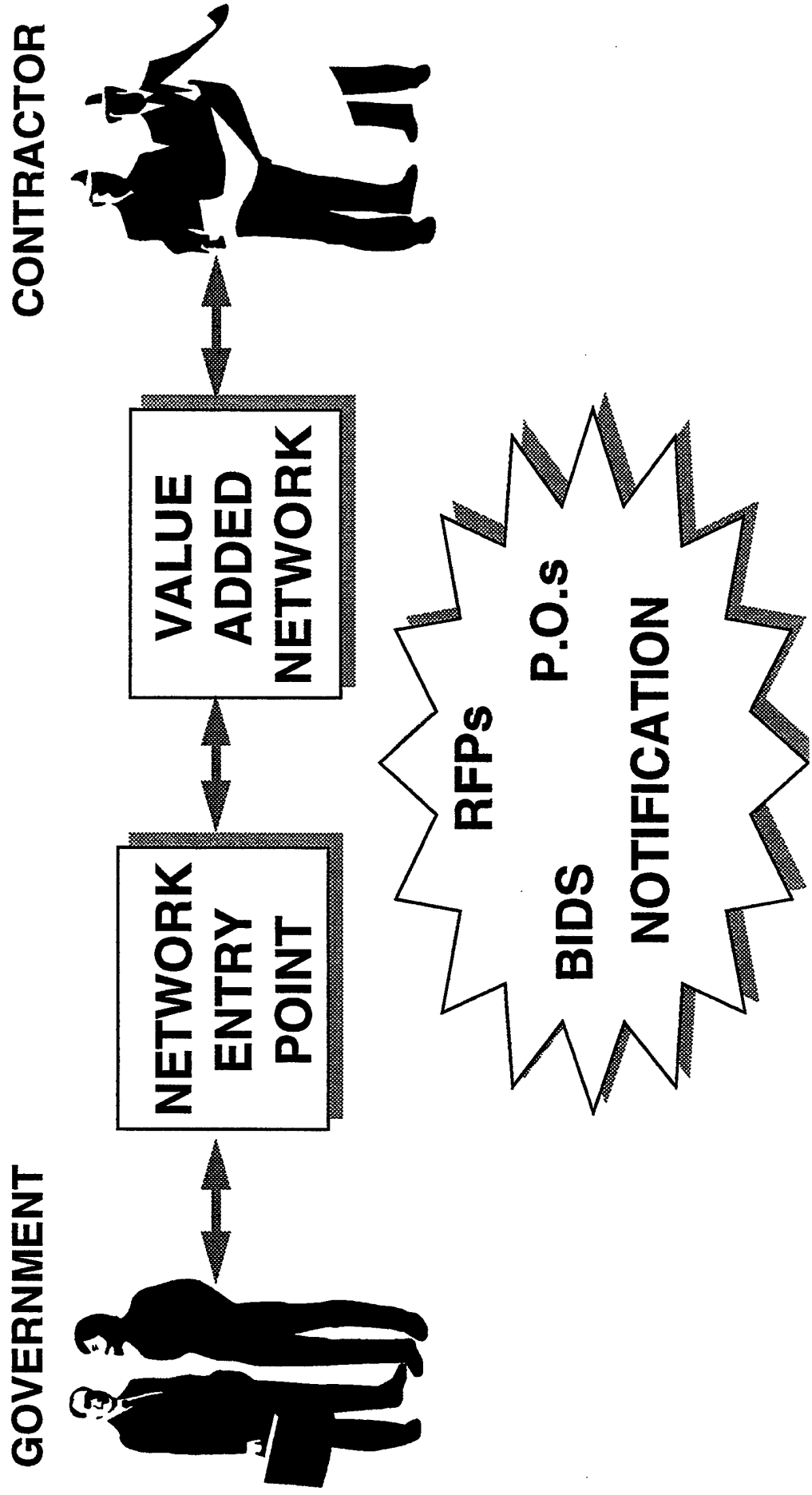
TEAM C4IEWS ELECTRONIC COMMERCE REVOLUTION

- ➔ **FEDERAL ACQUISITION STREAMLINING
ACT (FASA) MANDATED ELECTRONIC
COMMERCE (EC)**
- ➔ **FACNET CERTIFIED 28 NOV 95**
- ➔ **BASE OPERATIONS REQUIRED BY EDI
\$2,500 - \$100,000 SOLICITED BY EDI**
- ➔ **NO CBD SYNOPSIS REQUIRED**
- ➔ **EXPANDS VENDOR BASE**

“HOW IT WORKS”



EDI CONNECTION



**TEAM C4IEWS ELECTRONIC
COMMERCE FUTURE**

**“IF YOU’RE NOT CONNECTED TO A VAN
YOU WILL BE UNABLE TO BID ON
CECOM CONTRACTS FROM \$2,500 -
\$100,000”**

THE CHALLENGE

- **GET CONNECTED**
 - ★ **RFQs NO LONGER IN CBD NOW INCLUDES \$2,500 - \$100,000**
- **GET COMPETITIVE**
 - ★ **INCREASE YOUR OPPORTUNITY TO WIN AWARDS NATIONWIDE**
- **BECOME PAPERLESS**

“GET CONNECTED”

- ➔ **VALUE ADDED NETWORK (VAN) - DoD
CERTIFIED COMMERCIAL CARRIER THAT
RECEIVES ELECTRONIC INFORMATION
AND ACTS AS AN ELECTRONIC MAILBOX**
- ➔ **26 VANS TO CHOOSE FROM AS OF 8 MAY 96**
- ➔ **DoD APPROVED VAN LISTING AVAILABLE AT
★<http://www.acq.osd.mil/ec>**

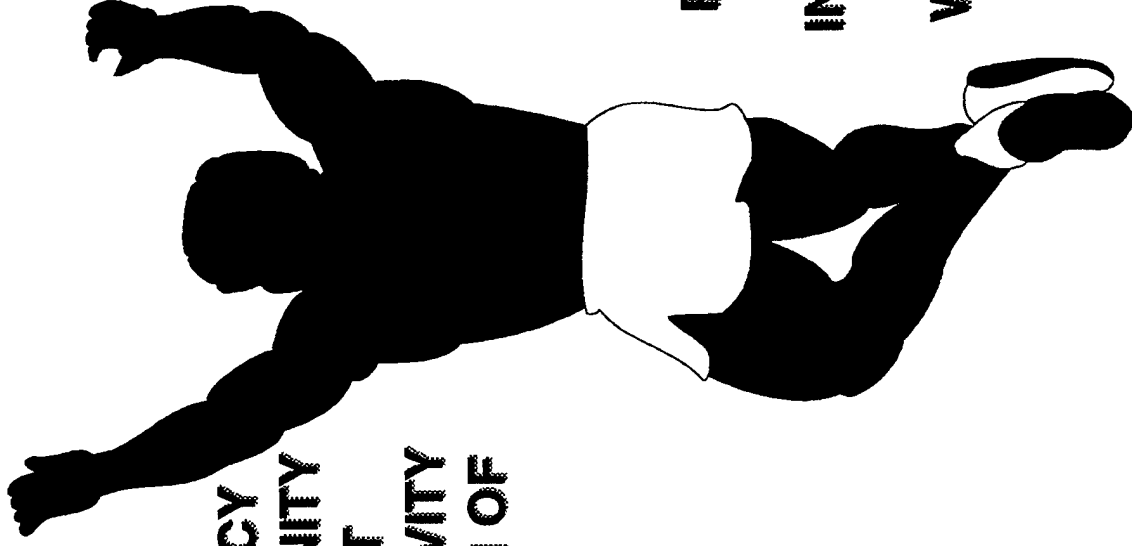
REQUIRED EQUIPMENT

➡ **EQUIPMENT REQUIRED FOR VAN
SUBSCRIBERS**

★COMPUTER WITH MODEM

★VAN - PROVIDED SOFTWARE

BENEFITS OF "GETTING CONNECTED"



CONTRACTORS

**INCREASED EFFICIENCY
INCREASED OPPORTUNITY
IMPROVED PAYMENT
INCREASED PRODUCTIVITY
WIDER DISSEMINATION OF
INFORMATION**

GOVERNMENT

**REDUCED ADMIN COST
REDUCED PROCESS TIME
REDUCED PRICES
INCREASED PRODUCTIVITY
GREATER COMPETITION
WIDER DISSEMINATION OF
INFORMATION**

COSTS

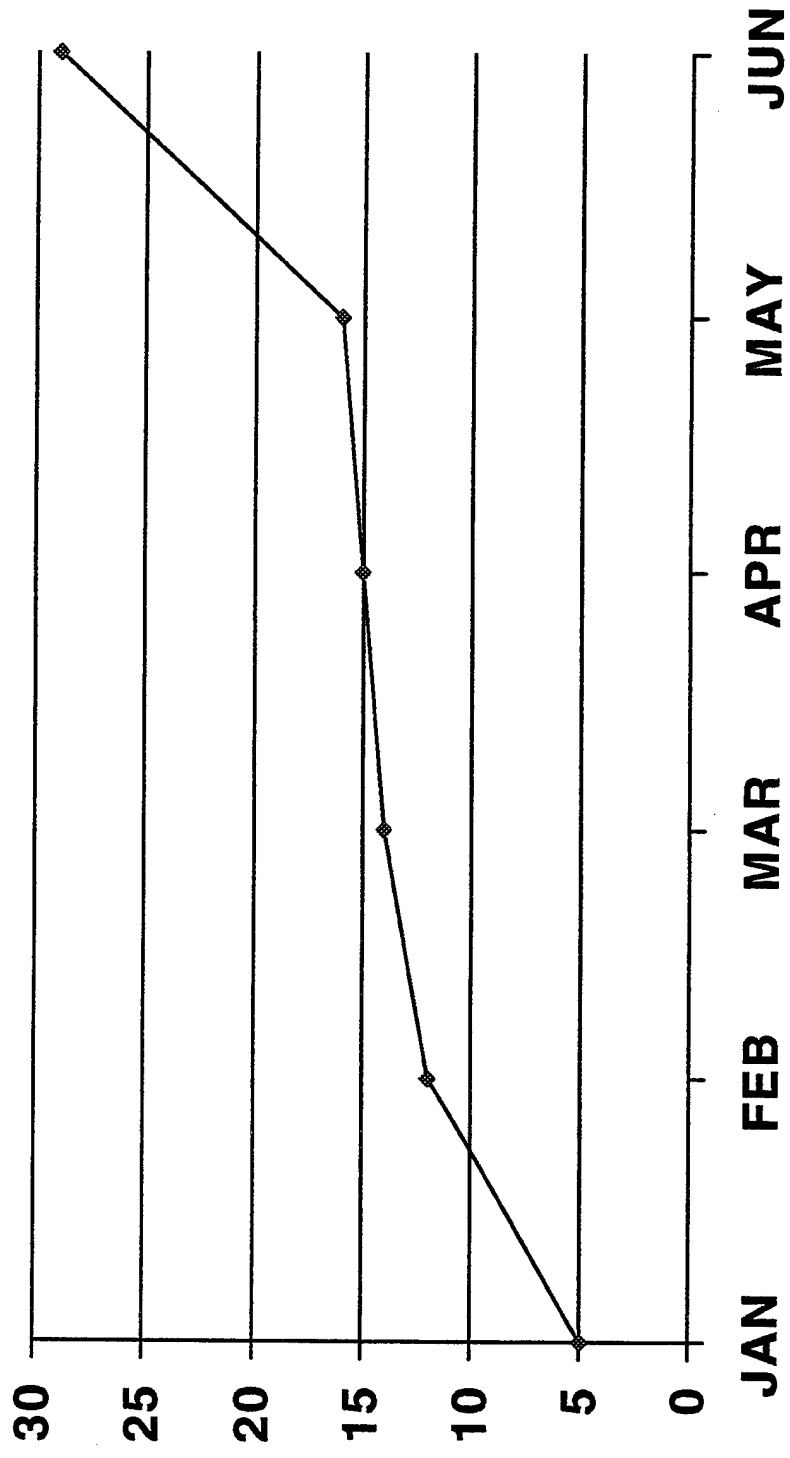
- ➔ **COST OF USING A VAN**
 - ★ **SET UP: \$50 - \$500**
 - ★ **BASIC SERVICE: \$30 - \$100 PER MONTH**
 - ★ **ADDITIONAL FEES BASED ON NUMBER OF CHARACTERS, NUMBER OF TRANSACTIONS OR PEAK/OFF PEAK TIMES**
- ➔ **WEBSITE FOR VAN COSTS:**
 - ★ **<http://www.ecrc.vofs.edu/ftp.html>**

EDI AWARDS

JAN - JUN 96

- ➔ **91 SOLICITATIONS**
- ➔ **43 AWARDS**
- ➔ **AVERAGE AWARD AMOUNT \$11,200**
- ➔ **AVERAGE NUMBER OF BIDS RECEIVED
PER RFQ - 14**

EDI RFQ's TRANSMITTED MONTHLY



DOD RESOURCES FOR EDI

➔ **EC INFORMATION CENTER**

★ **1-800-EDI-3414**

➔ **EC RESOURCE CENTERS LISTING**

★ **http://www.acq.osd.mil/ec/ecrs_ls.html**

➔ **INTRODUCTION TO ELECTRONIC
COMMERCE (A HANDBOOK)**

★ **<http://www.acq.osd.mil/ec/subject.html>**

➔ **YOU MUST REGISTER AT THE EC TO DO
BUSINESS ELECTRONICALLY WITH DOD**

ACQUISITION DOLLARS THRESHOLD

0 - \$2,500
MICRO-PURCHASE

\$2,500 - \$100,000
EDI
SAACONS

\$100,000
EBB

ENCRYPTED PROPOSALS

ON EBB

“AN OPTIONAL TOOL”

➔ **SUCCESSFUL TRANSMISSION BY TRW - JAN 96**

➔ **ENCRYPTION SOFTWARE - AVERAGE COST
\$150**

➔ **KEY DISK**

★ **ALLOWS ONLY GOVERNMENT OFFICIALS
ACCESS**

★ **REQUEST KEY DISK FROM:**

U.S. ARMY CECOM

AMSEL-AC-SB-AA

FORT MONMOUTH, NJ 07703-5008

“TESTING ON THE WORLD WIDE WEB”

➔ **GLOBAL BROADCAST SERVICE (GBS) TERMINAL
PILOT TESTING ON WORLD WIDE WEB IN LIEU OF
EBB**

★ **[www.answer.org/milstar/\(Business Opportunities\)](http://www.answer.org/milstar/(Business%20Opportunities))**

★ **SOLICITATION FORECAST: 31 AUG 96**

★ **PHASE I**

● **POST DRAFT REQUIREMENTS**

● **RECEIVE CONTRACTOR FEEDBACK**

★ **PHASE II**

● **PROPOSAL SUBMISSION AND EVALUATION**

➤ **3.5 INCH DISKS IN MICROSOFT 4.3**

➤ **CD-ROM ON GOVERNMENT TEMPLATE**

FUTURE OF EDI

**EDI FOR COMPLEX MISSION
RELATED REQUIREMENTS**

(\$2,500- \$100,000)

TARGET DATE: FY97

UPDATES OF MAY 95 CONTRACT OPPORTUNITIES

**AWARDED
FY95 REQUIREMENTS**

LRC

TITLE: NIGHT VISION SIGHT (AN/TVS5)

AWARDED: MARCH 96

DOLLAR AMT: \$811,580

CONTRACTOR: LITTON SYSTEMS

TITLE: NIGHT VISION GOGLES (GEN II+)

AWARDED: JUNE 96

DOLLAR AMT: REQ CONTRACT CURRENT VAL \$1.1M

CONTRACTOR: LITTON SYSTEMS

TITLE: RECHARGEABLE LITHIUM TECH

AWARDED: JANUARY 96

DOLLAR AMT: BAA \$2.5M

CONTRACTOR: YARDNEY TECH PRODUCT

LRC

**TITLE: REPAIR OF 346 BATTERIES (BB542)
AWARDED: JULY 95
DOLLAR AMT: \$228,074
CONTRACTOR: GENERAL RESEARCH LAB**

PEO C3S

**TITLE: NEAR TERM DIGITAL RADIO
AWARDED: JANUARY 96
DOLLAR AMT: \$10.7M
CONTRACTOR: ITT**

INACTIVE REQUIREMENTS

LRC

**TITLE: BATTERIES (BA1389, BA3517, BA386, BB590)
REASON: EXERCISED OPTION ON EXISTING CONTRACT**

**TITLE: SINGARS FREQUENCY HOPPING VHF RADIO
REASON: EXERCISED OPTION ON EXISTING CONTRACT**

**TITLE: TEST FACILITIES KIT (MK994A-AR)
REASON: REQUIREMENTS DID NOT MATERIALIZE**

**TITLE: TEST FACILITIES KIT (MK1191-AR)
REASON: REQUIREMENTS DID NOT MATERIALIZE**

**TITLE: C4I SINGLE SUPPORT STRATEGY
REASON: REQUIREMENTS DID NOT MATERIALIZE**

LRC

**TITLE: TACTICAL DIGITAL TROPOSCATTER (AN-TRC170)
REASON: REQUIREMENTS DID NOT MATERIALIZE**

PEO C3S

**TITLE: SURROGATE SATELLITE
REASON: PROGRAM ON HOLD DUE TO RESTRUCTURING
AND LOSS OF FUNDS**

**TITLE: SCAMP BLOCK II (LOW DATA RATE DEMAND
ASSIGNED MULTIPLE ACCESS)
REASON: NO LONGER HAVE A FIRM REQUIREMENT**

PEO C3S

**TITLE: SCAMP BLOCK II (AREA COMMAND USER SYS)
REASON: PROGRAM ON HOLD, RELOOKING BLOCK II
ACQUISITION STRATEGY. DoD SELECTED A
NEW VOCODER WITH VOICE INTERFACE
TO AN ACUS WHICH MAY REMOVE THIS
REQUIREMENT.**

RDEC

**TITLE: SYSTEMS & SOFTWARE ENGINEERING FOR
NIGHT VISION/ELECTRO OPTICS (IDIQ/T&M)
REASON: REQUIREMENTS WILL BE SATISFIED USING
EXISTING OMNIBUS CONTRACT**

**TITLE: RADIO ACCESS POINT (POINT INTEGRATION)
REASON: REQUIREMENTS DID NOT MATERIALIZE**

**TITLE: SYSTEMS & SOFTWARE ENGINEERING FOR
TRAINING & SIMULATION SYSTEMS
REASON: REQUIREMENT HAS BEEN CANCELED BY
CUSTOMER**



ACTIVE REQUIREMENTS

SMA

**TITLE: LIFECYCLE SUPPORT FOR NORTEL
RELEASED RFP: MAY 96
FORECASTED AWARD: AUGUST 97**

**TITLE: ARMY PERSONNEL COMPUTER (PC-2)
RELEASED RFP: JUNE 96
FORECASTED AWARD: OCTOBER 96**

**TITLE: ARMY PORTABLE COMPUTER (PORT 2)
RELEASED RFP: JUNE 96
FORECASTED AWARD: NOVEMBER 96**

SMA

**TITLE: ARMY SMALL MULTI-USER COMPUTER (SMC-III)
RELEASE RFP: 2nd QTR 98
FORECASTED AWARD: 4th QTR 98**

**TITLE: WORKSTATION - 2
RELEASE RFP: 4th QTR 98
FORECASTED AWARD: 3rd QTR 99**

LRC

**TITLE: NEXT GENERATION LITHIUM BATTERY
RELEASED RFP: FEBRUARY 96
FORECASTED AWARD: AUGUST 96**

LRC

**TITLE: GLOBAL POSITIONING SYSTEM (AN/PCN-11)
RELEASED RFP: MAY 96
FORECASTED AWARD: SEPTEMBER 1996**

PEO C3S

**TITLE: TRI-BAND TERMINALS
IN SOURCE SELECTION
FORECASTED AWARD: AUGUST 96**

PEO-I&W

**TITLE: FIREFINDER P3I
RELEASE RFP: AUGUST 96
FORECASTED AWARD: MARCH 98**

RDEC

**TITLE: BATTLESPACE COMMAND & CONTROL (OMNIBUS)
RELEASE RFP: OCTOBER 96 (OR UPON RELEASE OF
FUNDS)**

**TITLE: ARMY SECURE TACTICAL INITIATIVE SECURE
GATEWAY (R&D PROOF)
RELEASE RFP: CALENDAR YEAR 2000**

RDEC

**TITLE: HIGH CAPACITY TRUNK RADIO ON THE MOVE (BAA)
PROPOSAL REVIEW: AUGUST 96
FORECASTED AWARD: NOVEMBER 96**

**TITLE: ADVANCE INTERCEPT TECHNOLOGIES
FORECASTED AWARD: FY97/98**

**TITLE: ELECTRONIC WARFARE TECHNOLOGIES
FORECASTED AWARD: FY97/98**

**TITLE: ARMY INTEROPERABILITY NETWORK
RELEASE RFP: 4th QTR 97
FORECASTED AWARD: 1st QTR 98**

RDEC

TITLE: AIR/LAND ENHANCED RECONNAISSANCE &

TARGETING

RELEASE RFP: FY97

FORECASTED AWARD: FY97/98

**TITLE: MEASUREMENT AND SIGNATURE INTELLIGENCE
SYSTEM FOR UAV PAYLOADS**

RELEASE RFP: FY98

FORECASTED AWARD: FY98/99

**TITLE: INFORMATION FOR TACTICAL INTELLIGENCE
DATA FUSION**

RELEASE RFP: FY97/98

FORECASTED AWARD: FY97/98

RDEC

**TITLE: SYSTEMS & SW ENGINEERING FOR FIRE SPT CMD
CONTROL, FIRE DIRECTION & OTHER SYSTEMS**

**RELEASE RFP: 3rd QTR FY98
FORECASTED AWARD: FY99**

**TITLE: MISSION CRITICAL DEFENSE SYSTEM
MAINTENANCE (IDIQ/T&M)**

**RELEASE RFP: FY99
FORECASTED AWARD: FY99/00**

**TITLE: UNMANNED AERIAL VEHICLE COMMON MODULE
SENSORS/MULTI-MISSION PAYLOAD**

**RELEASE RFP: FY97
FORECASTED AWARD: FY99/00**

**CECOM ACQUISITION CENTER
PROACTIVE APPROACH TO
CONTRACTING EXCELLENCE**



**PEOPLE, AUTOMATION, CONTINUOUS
PROCESS IMPROVEMENT, AND
EDUCATION**



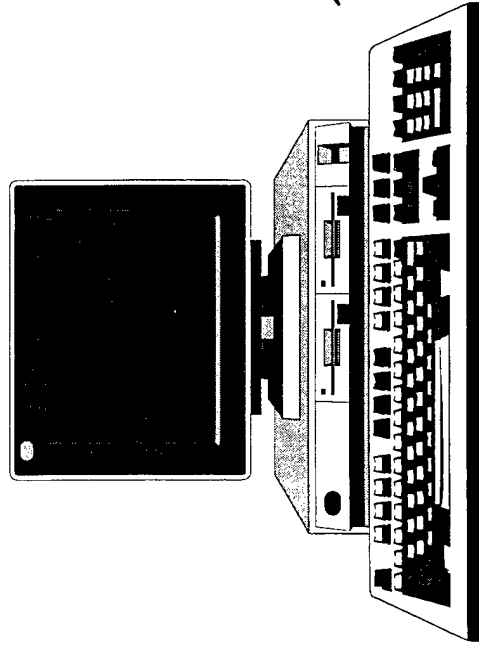
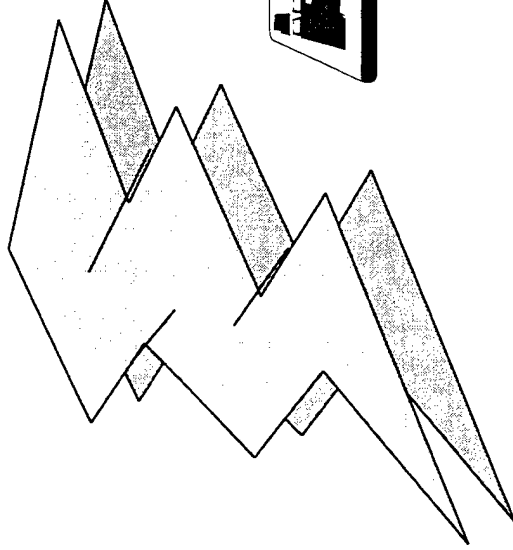
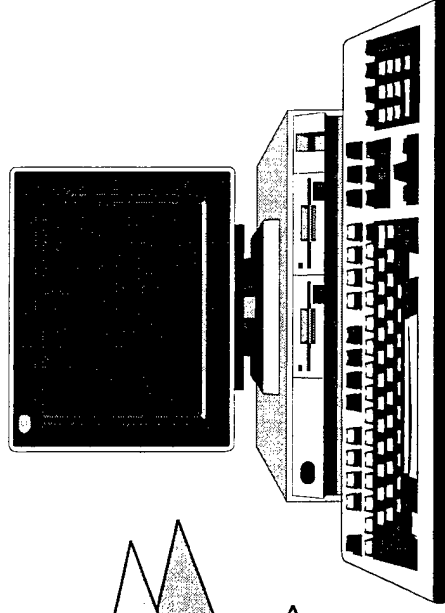
NOTES



Intelligent Product Data

Mr. Gary H. Salomon

**Chief, Engineering Data Management Branch
Logistics and Engineering Operations Directorate**



UNCLASSIFIED

INFO PAPER for APBI

Intelligent Data

As a result of our FCIM experience with electronic design automation, we have expanded our use of these tools into the area of support for performance-based acquisition, sustainment and life-cycle support for CECOM items. We call this initiative Intelligent Data. In coordination with the CECOM CALS and Specification and Standards Reform efforts, pilot projects are underway to acquire our engineering data in the form that industry uses for design, engineering and manufacturing. We will no longer buy the traditional Level III Technical Data Packages, but we will acquire or gain access to the contractor's design databases. This will allow us to accurately model product performance in software and allow us to give industry information which is directly useful for design, manufacturing and maintenance.

Intelligent data consists of application software, the so-called design tools, the design files themselves and part library files. If we continue to buy the traditional data forms we end up paying for less content, we perpetuate obsolescence problems, we don't enhance our knowledge of the product or our ability to support it and we undermine efforts for acquisition and standards reform. If we continue to use traditional data for acquisition, including written performance specs, we pay the contractor for conversion to intelligent data and we increase cost and PLT by paying for redesigns "from scratch" on each buy.

The use of intelligent data is more in line with how industry operates. It will reduce PLT and facilitate the sharing of information between government and industry. The use of intelligent data will allow true performance-based acquisition, with less chance for misinterpretation and enhanced ability for innovative design options. In addition, this type of data can be used to support multiple functions such as engineering, maintenance and interoperability.

We are taking a three-pronged approach to implementation of this concept:

- Acquire access to intelligent data during system development and procurement
- Create intelligent data from legacy data for use on spares reprourement when it makes sense to do so.
- Use intelligent data to perform selective performance upgrades via spares re-engineering

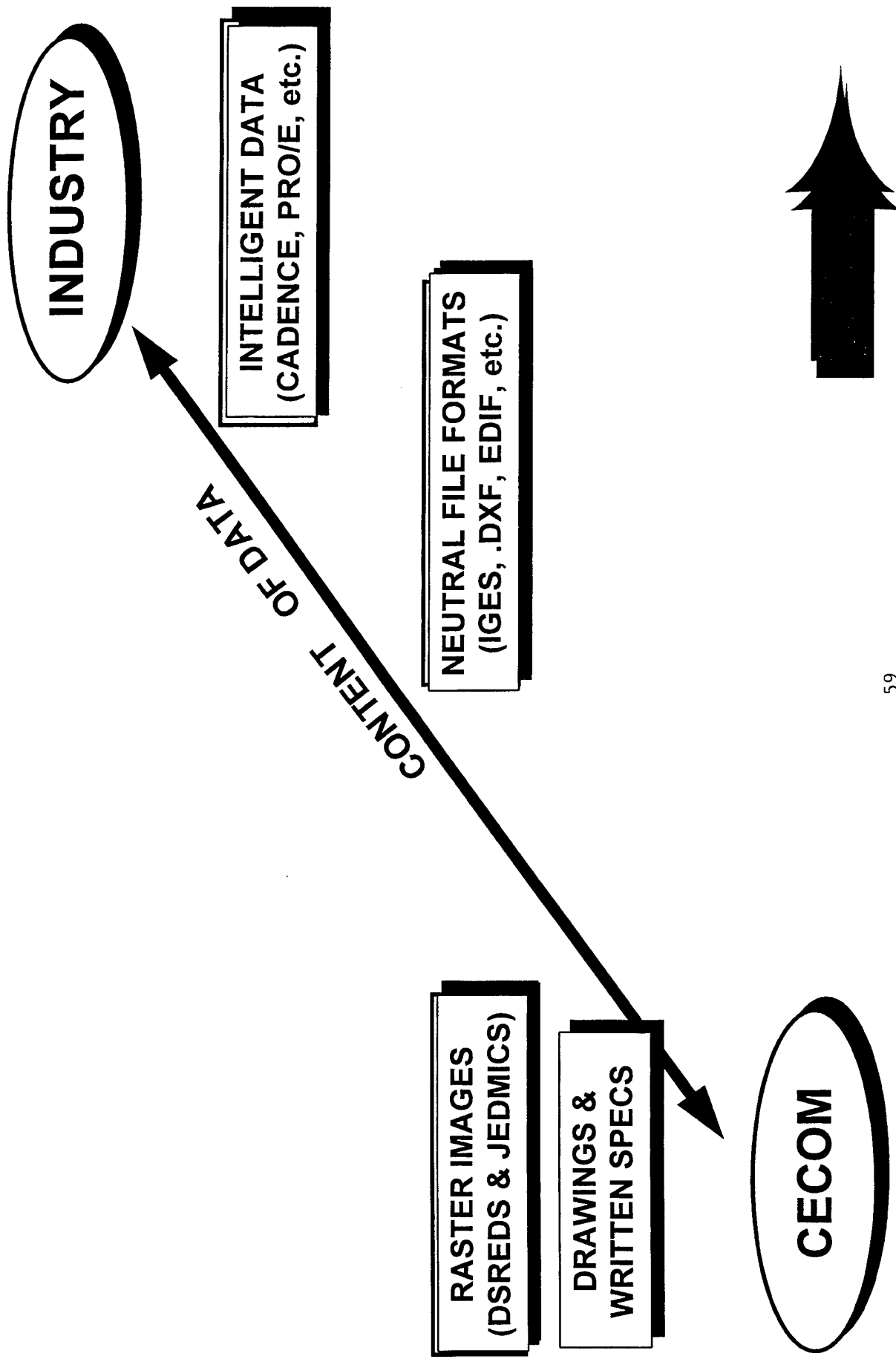
Our progress in this effort can be measured in two main areas. In terms of our ability to accept, store and use intelligent data we have set up a state-of-the-art electronic design automation network infrastructure. Cadence, PRO/Engineer, I-DEAS, Computervision and AutoCAD software has been installed. A core group of expertise has been established within the new Engineering Data Management Branch of ELA Division, LEO

Directorate. In the area of the acquisition and creation of intelligent data we are preparing a SOW for new buys, we are working with the SINCGARS prototype team to acquire intelligent data files from both ITT and GDLS. The legacy data conversion and selective spares upgrade processes have been developed under the FCIM program and are being validated on the AN/PRC-126 redesign project and SATCOM spares efforts.

Background

- INTELLIGENT PRODUCT DATA IS OUR TERM FOR DESIGN DATABASES WHICH:
 - ALLOW US TO ACCURATELY MODEL PRODUCT PERFORMANCE IN SOFTWARE
 - CONTAINS INFORMATION THAT IS *DIRECTLY* USEFUL FOR DESIGN, MANUFACTURING AND MAINTENANCE
- INTELLIGENT PRODUCT DATA IS NOT LEVEL 3 DRAWINGS OR WRITTEN SPECIFICATIONS
- INTELLIGENT PRODUCT DATA CONSISTS OF:
 - APPLICATION SOFTWARE (DESIGN TOOLS)
 - DESIGN FILES
 - PART LIBRARY FILES

Why Intelligent Data?



More Reasons

- IS MORE IN LINE WITH HOW INDUSTRY OPERATES
 - REDUCE PLT
 - FACILITATE SHARING OF INFORMATION BETWEEN GOVERNMENT AND INDUSTRY
- WILL ALLOW TRUE PERFORMANCE-BASED ACQUISITION
 - LESS CHANCE FOR MISINTERPRETATION
 - ENHANCES ABILITY FOR INNOVATIVE DESIGN OPTIONS
 - LESS RESTRICTIVE; IS NOT PROCESS-SPECIFIC
- CAN BE USED TO SUPPORT MULTIPLE FUNCTIONS
 - ENGINEERING
 - MAINTENANCE
 - INTEROPERABILITY

Significance for LRC

- INDUSTRY USES INTELLIGENT DATA AS A TOOL TO:
 - REDUCE TIME-TO-MARKET AND COST
 - PROVIDE PERFORMANCE-BASED DEFINITION OF REQUIREMENTS TO SUPPLIERS
 - ENHANCE ABILITY TO CUSTOMIZE AND IMPROVE PRODUCTS
- LRC HAS A NEED TO
 - REDUCE ALT/PLT AND COST
 - PROVIDE PERFORMANCE-BASED PRODUCT SPECS TO SUPPLIERS
 - MAINTAIN LONG-TERM SYSTEM VIABILITY

INTELLIGENT DATA IS A KEY ENABLING TECHNOLOGY FOR LRC

Approaches to Implementation

- **ACQUIRE ACCESS TO INTELLIGENT DATA DURING SYSTEM DEVELOPMENT AND PROCUREMENT**
- **CREATE INTELLIGENT DATA FROM LEGACY DATA FOR USE ON SPARES REPROCUREMENT WHEN IT MAKES SENSE TO DO SO**
- **USE INTELLIGENT DATA TO PERFORM SELECTIVE PERFORMANCE UPGRADES VIA SPARES RE-ENGINEERING**
- **USE DATA FOR MULTIPLE FUNCTIONS SUCH AS TECH PUBS, LOGISTICS SUPPORT PLANNING**

Status and Accomplishments

- ABILITY TO ACCEPT, STORE AND USE INTELLIGENT DATA
- IMPROVED ELECTRONIC DESIGN AUTOMATION NETWORK IOC DEC 95
- CADENCE, PRO/ENGINEER, I-DEAS, CV AND AUTOCAD SOFTWARE INSTALLED
- CORE GROUP OF EXPERTISE ESTABLISHED IN EDM BRANCH OF ELA DIVISION, LEO DIRECTORATE

Status and Accomplishments

- ACQUISITION/CREATION OF INTELLIGENT DATA
 - POLICY AND SOW BEING DEVELOPED
 - CONTRACTOR-SUPPLIED DATA BEING TESTED, VERIFIED AND STORED IN EDM BRANCH
 - LEGACY DATA CONVERSION PROCESS ESTABLISHED UNDER FLEXIBLE COMPUTER INTEGRATED MANUFACTURING (FCIM) PROGRAM - TO BE UTILIZED ON SPARES IN SUPPORT OF PERFORMANCE-BASED ACQUISITION

Importance for Industry

- NEW DoD AND DA GUIDANCE CALLS FOR EXTENSIVE USE OF MODELING AND SIMULATION FOR DESIGN, ENGINEERING AND SUPPORT FUNCTIONS
- INTELLIGENT PRODUCT DATA WILL BE AN EVALUATION FACTOR IN RFPs
- ANTICIPATE INCREASED USE OF SHARED CONTRACTOR-GOVERNMENT INTEGRATED DATA ENVIRONMENTS vs. DATA DELIVERIES

Summary

- THE USE OF INTELLIGENT PRODUCT DATA IS PERVASIVE IN INDUSTRY, BUT NOT IN DoD. THIS COSTS US TIME AND \$\$\$
- INTELLIGENT PRODUCT DATA PROVIDES THE COMMON GROUND FOR IMPLEMENTING IPPD, ALT/PLT REDUCTION, AND PERFORMANCE-BASED ACQUISITION
- CECOM IS MAKING INTELLIGENT PRODUCT DATA A KEY PROCESS IMPROVEMENT
- POC: GARY SALOMON (908) 532-2224
salomon@doim6.monmouth.army.mil



NOTES



Session I

Acquisition Streamlining and Reform

Edward Bair
Deputy Program Executive Officer
for
Intelligence & Electronic Warfare

UNCLASSIFIED

23 Jul 96

Point Paper

Subject: Acquisition Streamlining & Reform

Objective: The mission of the IEW Acquisition Manager is to field and insert state-of-the-art, interoperable sensor capabilities and products which enable the Land Component Commander to control time, space and the environment, while enhancing Survivability and lethality, through continuous technology evolution and Warfighter focus, in the right place and the right time , and at the Best Value for the US Taxpayer. To accomplish this within the environment of shrinking budgets, acquisition must be accomplished Better, Cheaper and Faster. Acquisition Reform provides the only mechanism to accomplish this difficult task.

Facts:

- Acquisition Reform requires a complete transformation in the way we do business.
- This means changes to the societal, political, economic and technological aspects of the process.
- Real change requires changing behavior.
- Changing behavior means changing the entrenched culture.
- Key enablers will help transform the culture to the desired state.
- We can not manage what we can not measure.
- We must seize this opportunity. Progress has been made but we must press on. It is now or never!

Briefer: Mr. Edward T. Bair, Deputy Program Executive Officer, Intelligence & Electronic Warfare, SFAE-IEW-D, (908) 532-0179.

Action Officer:
Richard Oleson
Operations Division
(908) 427-2492

IEW

PROGRAM EXECUTIVE OFFICE

Vision and Mission Statement

Vision:

To be the Army's Premier Provider of Sensor Capabilities and Products to the American Warfighter in the Most Efficient and Effective Manner

Mission:

To Field and Insert State-of-the-Art, Interoperable Sensor Capabilities and Products Which Enable the Land Component Commander to Control Time, Space and the Environment, While Enhancing Survivability and Lethality, Through Continuous Technology Evolution and Warfighter Focus, In the Right Place and Right Time, and at the Best Value for the US Taxpayer





Why We're Here

CINC
Support

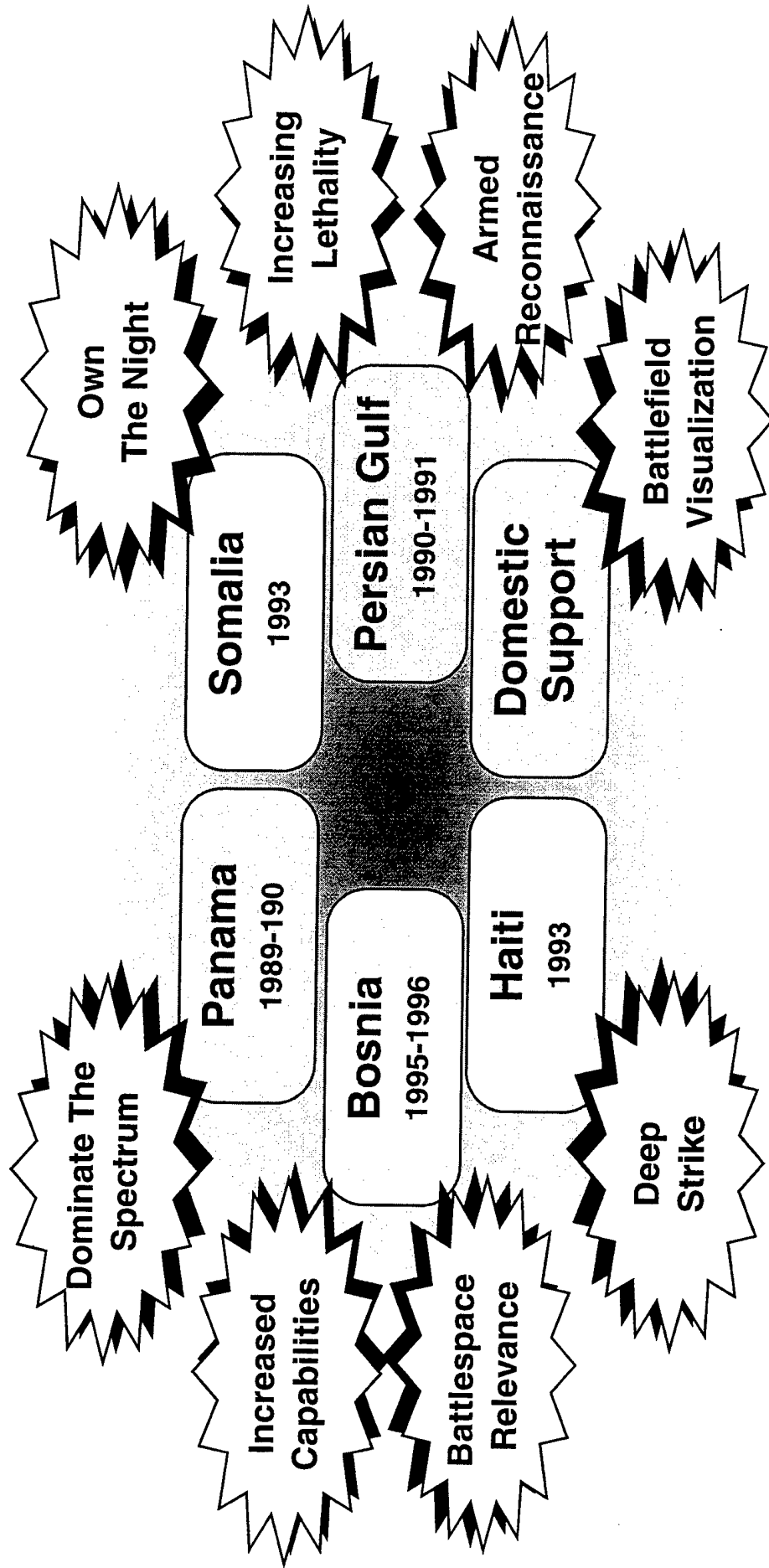
Field the Most Modern Technology
to the Soldier Now!

Our #1 Priority



The Strategic Target

Capabilities For The Warfighter

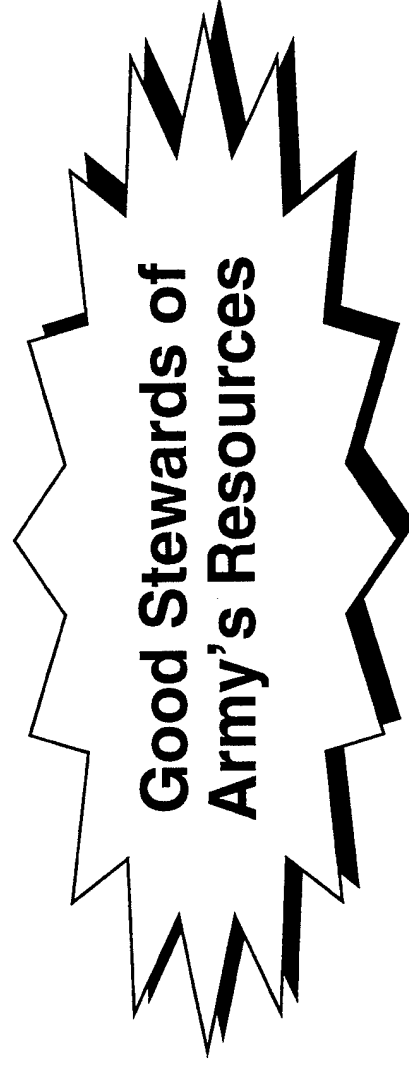


Relevant, Ready, and Effective



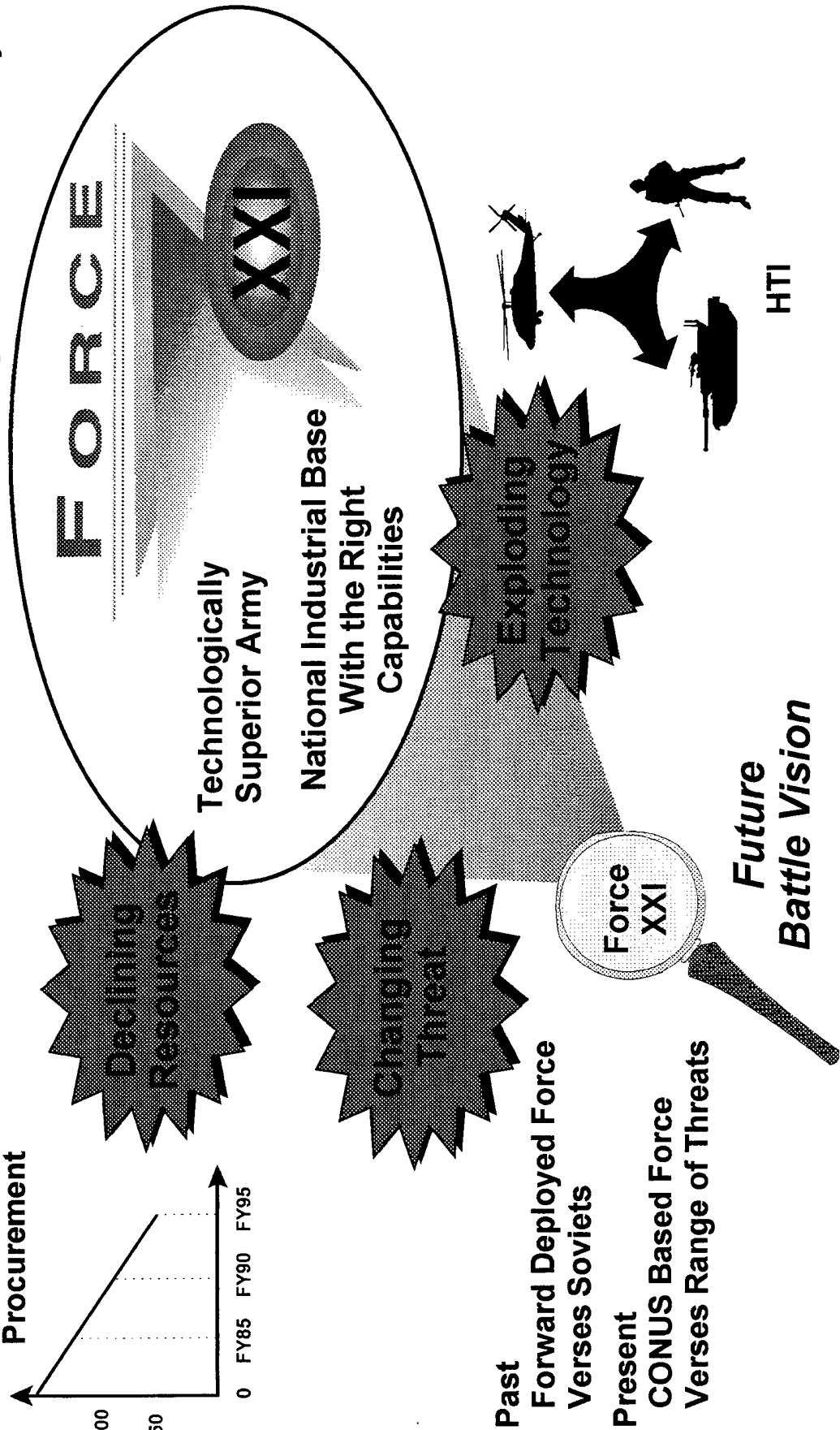
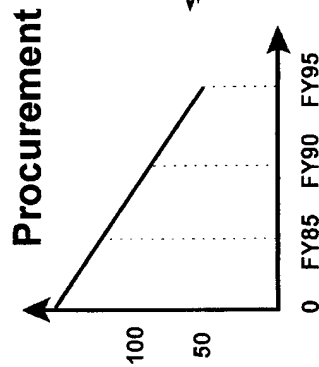
Acquisition Streamlining Efficiencies

Better, Cheaper, Faster...



The Acquisition Challenge

Cultural Change Needed
to Bring Force XXI to Reality





"Most Wanted" Military Requirements

**KPMG ACBM
Final Report, Dec 94
- 20% Premium**

• MIL-OS 858A

• Truth in Negotiations Act

• Cost Schedule Control System

• Configuration Management

• Contract Specific Requirements
(MILSPECS)

• Contract Oversight (DCAA/DCMAO)

• Cost Accounting Standards

• Material Accounting System

• Drawings

• GFE Administration

**Carnegie Study
- 25-35% Premium**

**ADPA "The Cost
Premium"
- 30-50% Premium**

**Coopers - Lybrand
"The DoD Regulatory Cost
Premium: A Quantitative
Assessment", Dec 94
- 10-50% Premium**

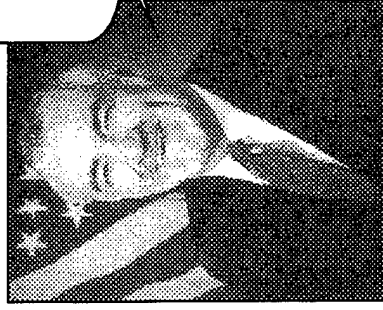


Culture Change

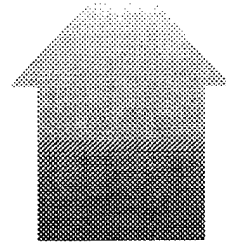
The Paradigm:

- Move From Risk Adverse (CYA) Behavior to Risk Acceptance (High Performance) Behavior

*It's the
Culture, Bair!*



Provide "Cover"
Trust
True Delegation



Entrepreneurialism!



Change (chanj)

- To cause to be different; alter.
- To give a completely different form or appearance to; transform.

The American Heritage Dictionary



Culture Change The Acquisition Frontier

“...Incremental Change is What We’re Used to; The Kind We Could Manage Gradually, With Careful Planning, Broad Consensus - Building, and Controlled Execution. Now, we Must Not Only Manage Change, We Must Create Change - *Big Change* - and Fast. If We Stop For Leisurely Consideration of the Issues, The Situation Will Alter in Front of Our Eyes and Our Careful Judgements Will Not Apply. Everything is in Question.”

Focus

*If You Don't Change the Culture,
Why Would You Expect the Results to Change?*

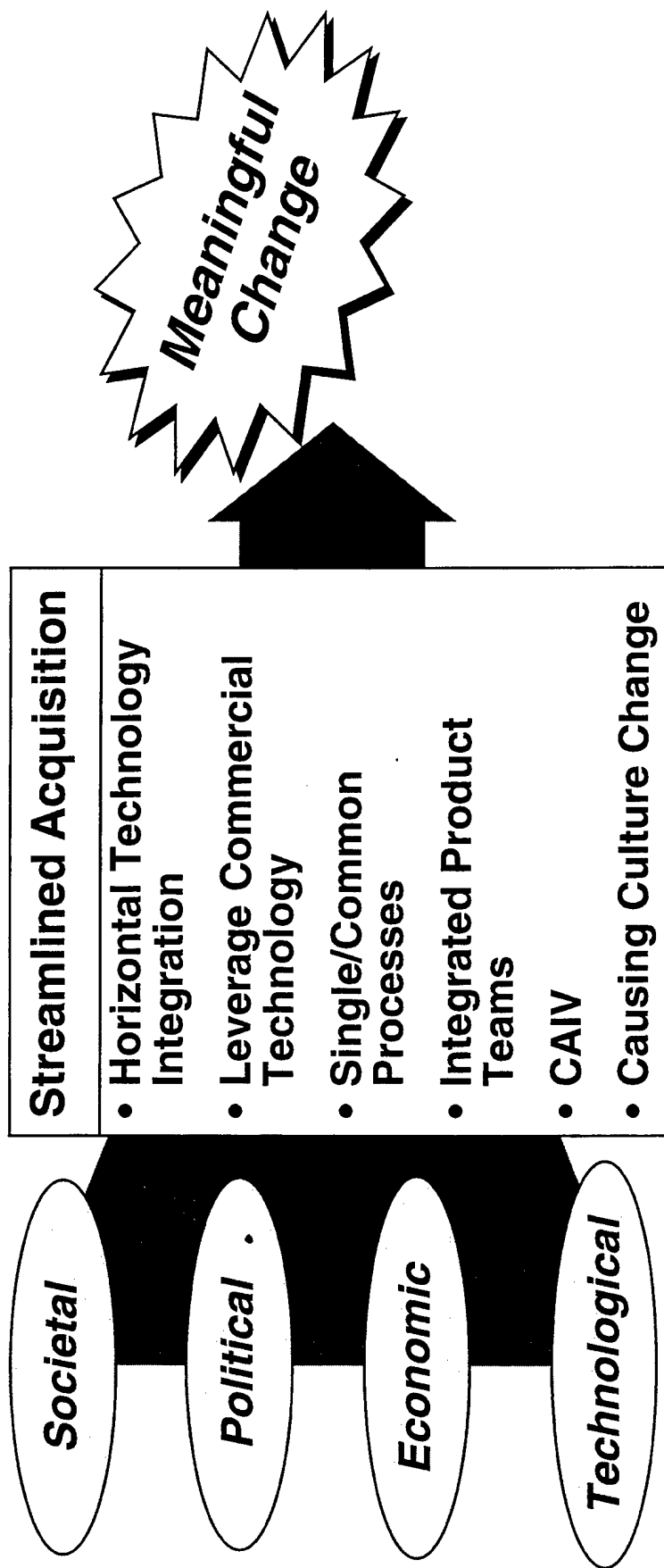
Future State

- Immediate Availability
- Short Development Times
- Field Order Placement
- Affordable Cost
- Outstanding Quality and Reliability

Enablers

- Performance Based Specs
- Adopt Successful Commercial Practices
- Integrated Product Teams
- Horizontal Technology Integration
- Measuring Progress (Metrics)
- Trust and Confidence ---> Empowerment

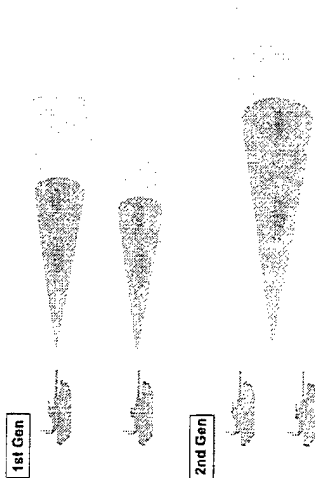
Enabling Culture





Horizontal Technology Integration (HTI) “Smarter” Way to do Business

Second Generation FLIR (SGF)



**HTI is a
Technology
Enabler**

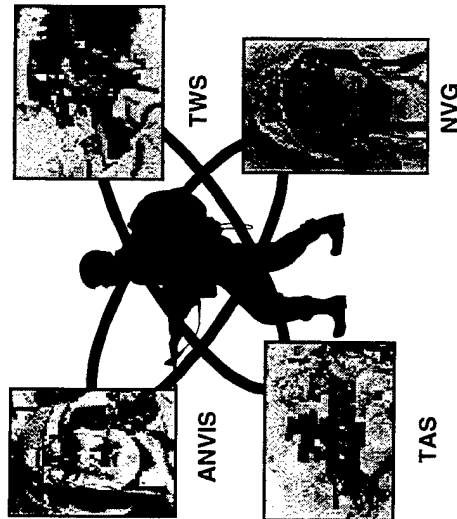
• What is HTI?

- The Application of Common Technologies Across Multiple Systems

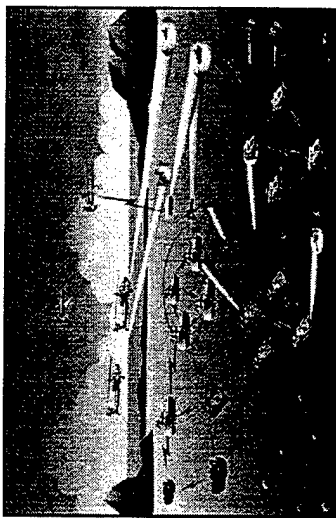
• Reduced Cost

- Economy of Scale
- Life Cycle Savings (O&S)
- Eliminate RDA Duplication
- Shorten Acquisition Cycle
 - Facilitates Rapid Insertion of Leading Edge Technology
 - Focused Technology Base
 - Facilitates Interoperability

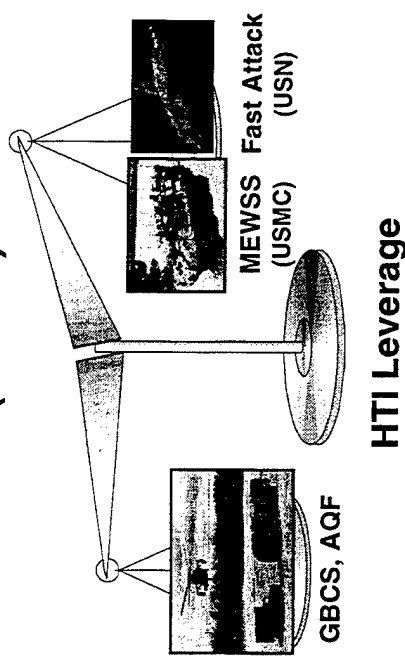
Soldier as Platform



Battlefield Combat ID System (BCIS)



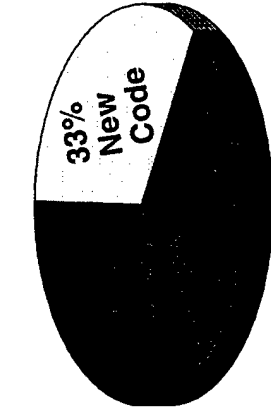
IEW Common Sensors (IEWCS)





Software Reuse = HTI

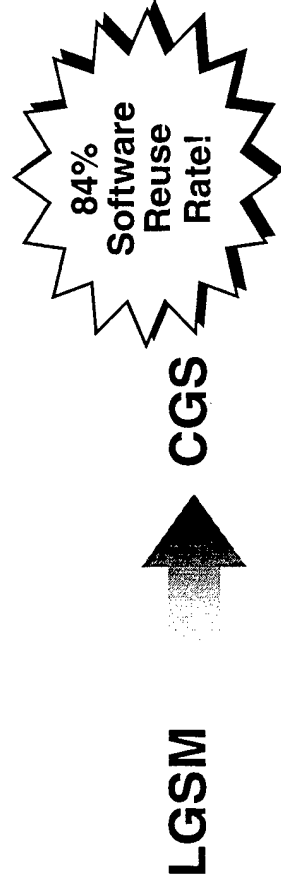
Airborne Reconnaissance Low (ARL)



- ARL(M) Consists of 150,000 + SLOC
- Over 100,000 SLOC Reused From ESM and IMINT Programs
 - Previously Existing Ada and "C" Code
- New Code Well Below 1/3 Threshold for New Non-Ada Code (23%)



JSTARS CGS



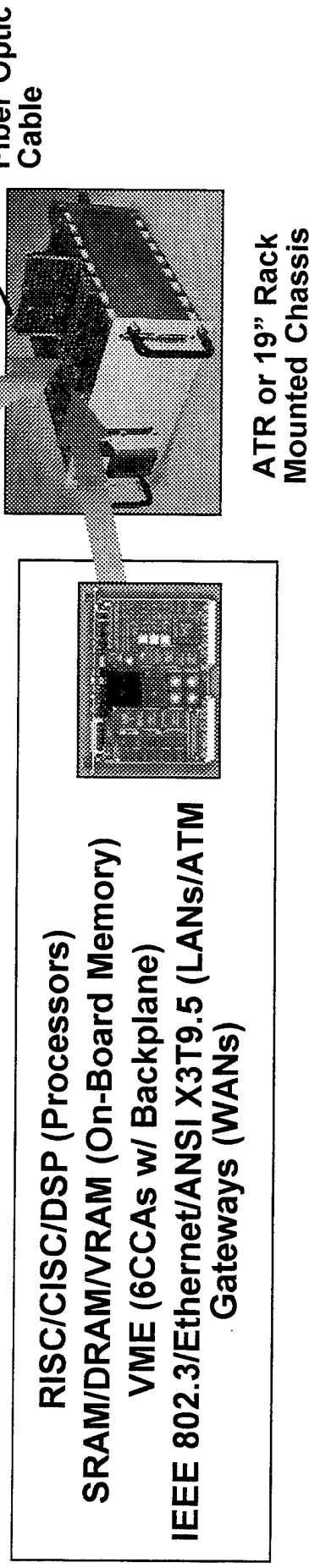
- CGS Reuse of 422,500 SLOC (84%)
 - LGSM/EGSM Software Reuse
 - COTS/GOTS Software Reuse
 - 81,500 New SLOC Written in Ada





Leveraging Commercial Technology 6U VME CCAs

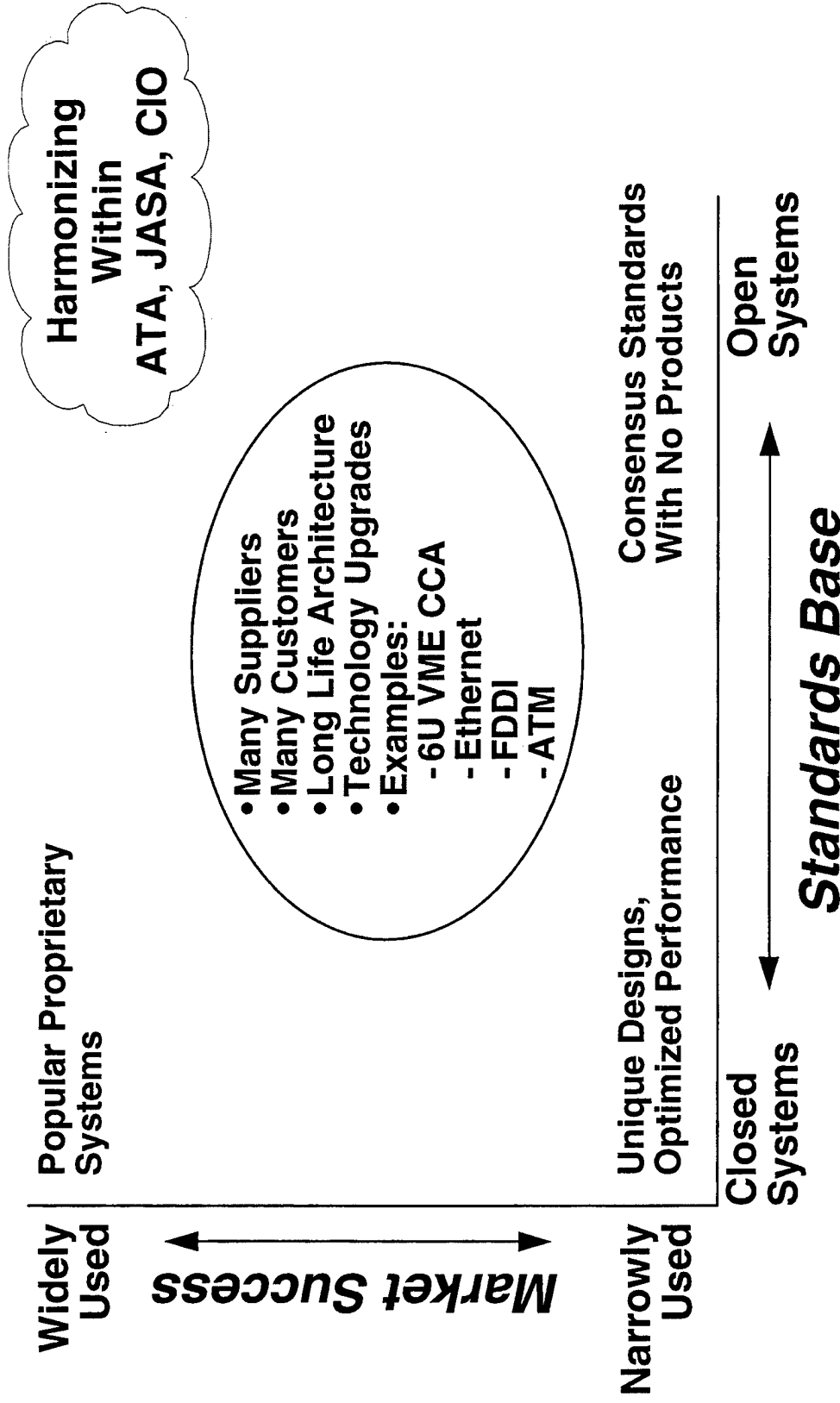
- Open Systems Architecture Leverages \$9-12 Billion in Commercial Integrated Circuit R&D, Design and Manufacturing
- Eliminate MIL SPECS/STDs
- Benchmark on the Most Prolific Industry Standards
- Adopt Commercial Information Technologies





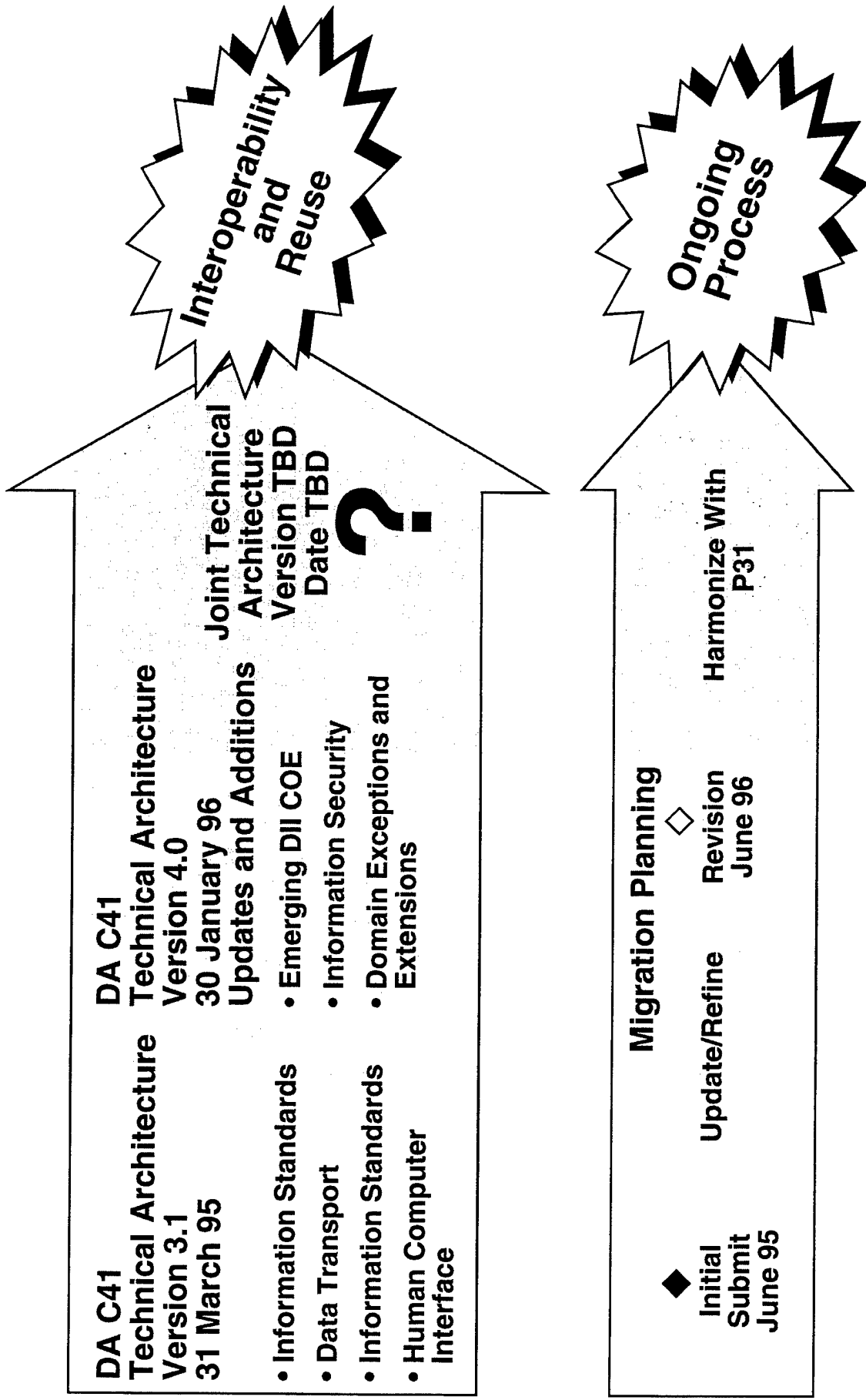
Open Systems Architecture

What's Open?





Army Technical Architecture Evolution and IEW Systems Migration



FY00 = ATA Interoperability STDs Compliance



Single/Common Processes

AAE
24 Aug 95
Memo

*...All PEOs to Implement
Common Processes Initiative
at Major Contracting Facility*

- Common Processes Target Areas:
 - Manufacturing
 - Engineering Management
 - Business Practices
 - Contracting Requirements
 - Quality
- Payoffs:
 - Cost Savings (Both Govt and Contractors)
 - Reduced Cycle Time
 - Quality Products
 - Standardized Work Force

Candidates

- Motorola; Scottsdale, AZ
 - JSTARS GSM, CGS
- Whittaker Electronics; Simi Valley, CA
 - SHORTSTOP
- Lockheed Sanders; Nashua, NH
 - TLOS, TACJAM-A
- TI; McKinney, TX
 - SGF, DVE
- LM; Owego, NY
 - IEWCS Family
- HAC EOS; El Segunda, CA
 - TWS, SGF
- ITT; Roanoke, VA
 - I2 Family



Single Process Initiative Status

PEO IEW DoD/Component Lead

Facility : Motorola

Single Process :

- ✓ ISO 9001 Quality
- Intellectual Property
- Electrostatic Discharge
- Low Residue Solder
- FASA Changes

Status : ISO 9001 Compliance
in 67 Days, Others in Process

Facility : HAC EOS

Single Process :

- ISO 9001 Quality
- Solder
- Calibration

Status : Review of Concept Papers in
Process

Facility : ITT NV

Single Process :

- ISO 9001 Quality
- Calibration

Status : Concept Papers Approved,
Block Mod in Process

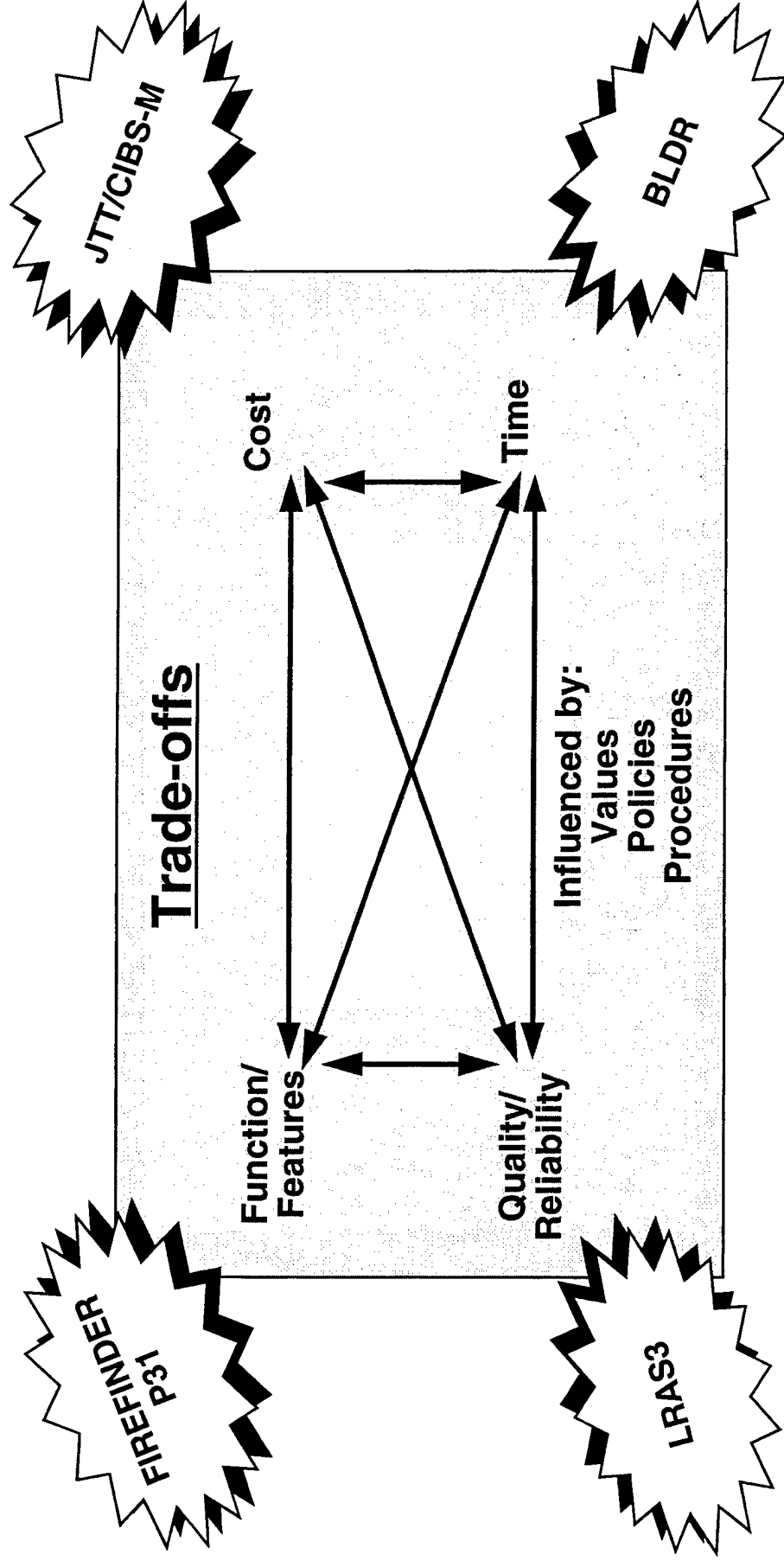
Facility : LM Owego

Single Process :

- ISO 9001 Quality
- Solder
- Calibration
- Government Property

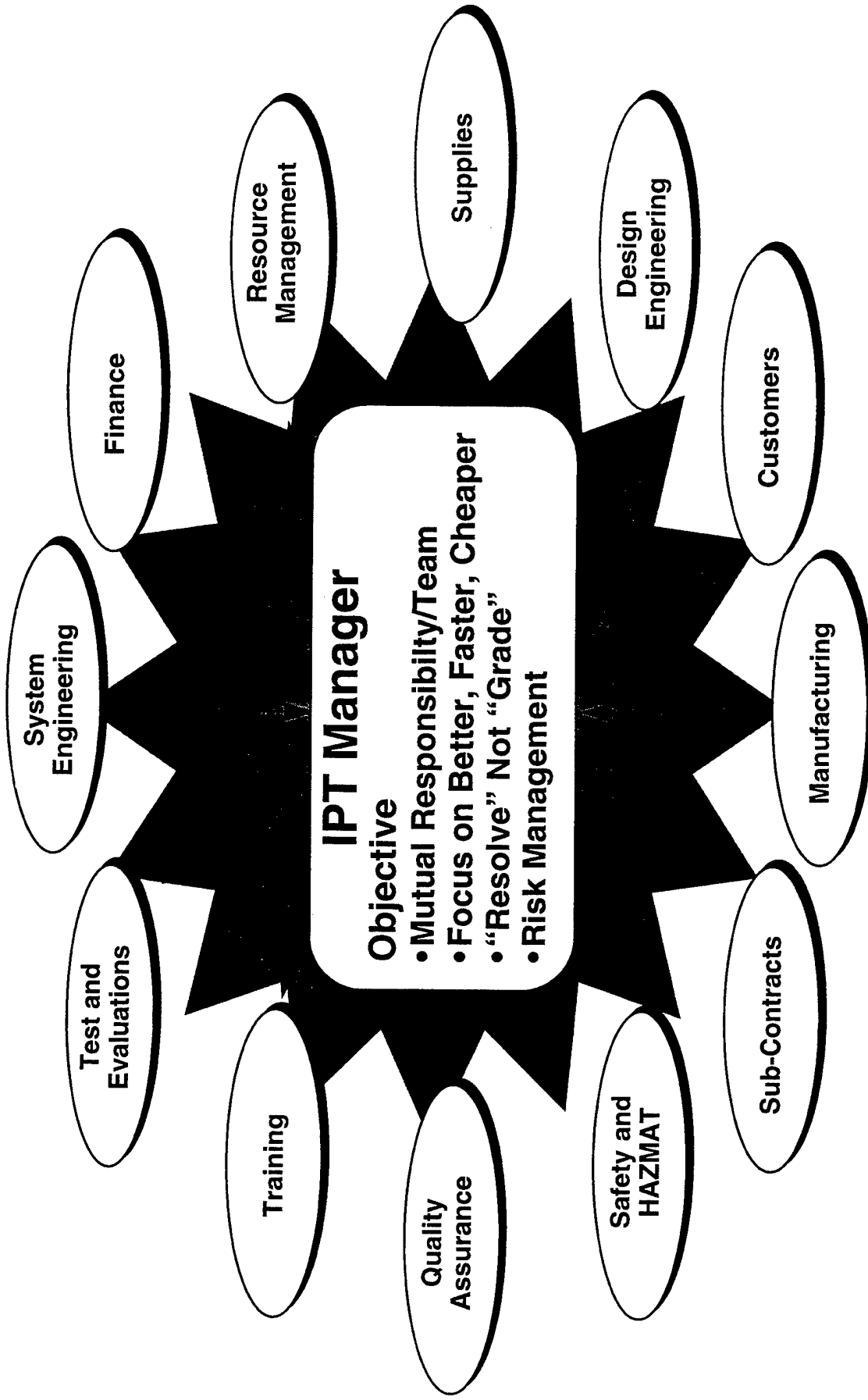
Status : Review of Concept Papers in
Process

Cost As an Independent Variable (CAIV)

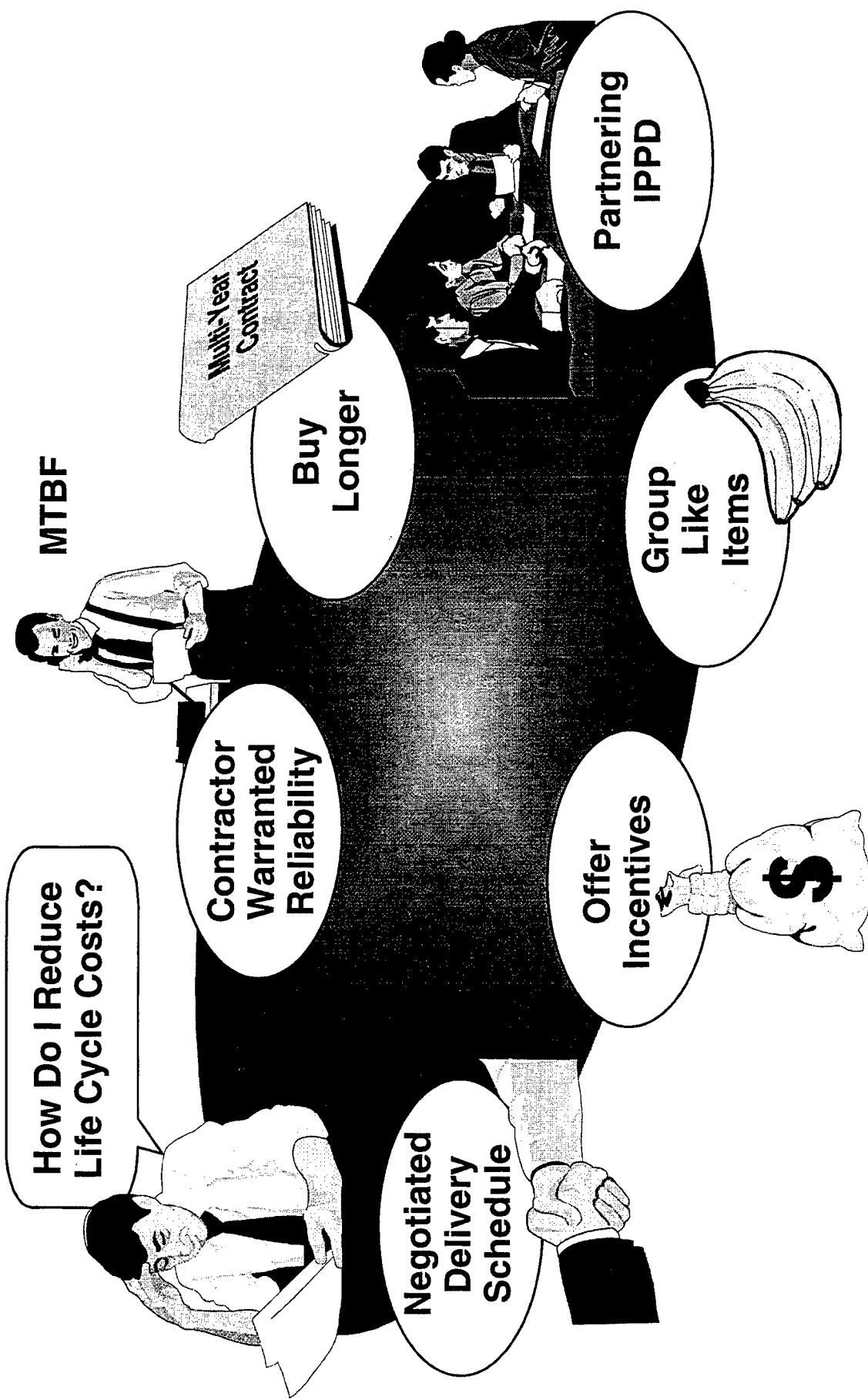


- Cost Must Become as Much a Need as Performance in Managing the Design of Systems
- Move the Tradeoff Considerations From a Preoccupation With Performance and Quality to a Balanced Consideration With Cost

Integrated Product Teams



Investment Strategy





Causing Culture Change ...Doing, Listening & Focusing

- **Developing Our Workforce**
 - **Army Roadshows (I-V)**
 - **Team C4IEWS Roadshow (22-25 Jul 96)**
 - **Stand-Down Days/Periods**
 - **Warranty Tutorial (20 Jun 96)**
 - **Metrics for Program Management (18-19 Jul 96)**
 - **TAQ Self Assessment Utilizing Baldrige Criteria**
 - **Mandating Minimum Number of Training Hours**
- **Dialogue With Industry**
 - **APBIs**
 - **Seminar Participation**
 - **Over 40 Letters Personally From PEO/DPEO to Industry**
 - **Local Management Councils**
- **Formulation of Strategic Metrics & Flowdown to PMs/POs**
 - **In Process at PEO Level**
 - **Out to PMs/POs for Comment Jul 96**
 - **Target Implementation FY97**



Acquisition Reform As Seen by Industry (ADPA Survey)

- **We Are Making Progress**
 - Tracking and Improvement of Past Performance
 - Performance Specs
 - Understanding of Best Value Acquisitions
- **Some Things Need Improvement**
 - Single Process/Block Change Initiative
 - Elimination of MILSPECS & STDs
 - Role of Primes With Subcontractors
 - Proposal Preparation Is Not Easier/Cheaper
- **Major Programs Doing Better Than Non-Major Programs**
- **Army Is Seen As #2 Behind Air Force in Implementing Well**

Workforce Feedback From Stand-Down Day

Working Well:

- IPT Partnering With Industry
- Performance-Based Acquisitions
- Use of EBB: Improves Communications With Industry and Is Effective in Reducing Cycletime

Not Working Well:

- Some Still Emotional Over Elimination of MILSPECS
- Effective Application of CAIV in All Acquisition Phases
- IPT Process:
 - Just Another Buzzword for Working Group?
 - True Empowerment of IPT Members
- “Gaps” in DoD 5000 Guidelines:
 - ACTD Process
 - Single Acquisition Management Plan (SAMP)

Recommendations:

- Need “Across-the-Board” Support of Senior Level Management Make Training Available on IPT & CAIV
- Improve Cost Models for More Valid CAIV Cost Target



Dialogue With Industry

- Establish Government-Industry Partnership in Acquisition Reform Process
- Seeking Frank Feedback
 - What Is Working
 - What Is Not
 - Lessons Learned
 - Missed Opportunities
- Letters Sent to Over 40 of Our Contractors Across All PMs

What PEO IEW Primes Are Telling Us

Making Progress In:

- ✓ Use of Performance SPECS
- ✓ Best Value Acquisitions
 - Pre-Bidders & Bidders Briefings Extremely Helpful
- ✓ IPT Process & Partnering
 - Alpha Acquisition Process Helps to Streamline RFP Cycle
- ✓ COTS/NDI Emphasis
 - Helps Reduce Cost
 - Leverages off Advanced Commercial Technology

Still Needs Improvement In:

- ✓ RFP Size & Complexity
 - Proposal Prep Not Any Easier or Cheaper
 - Cost Proposals Still Complex
- ✓ EBB Response Time, Tracking Changes, & Reliability
- ✓ Source Selection Process
 - Limit Evaluation to Key Discriminators
 - Excessive IFNs; Should Handle As Part of Orals
- ✓ Need to Establish Consistent Groundrules for:
 - Best Value Acquisitions
 - Past Performance (PRAG)
 - Oral Presentations



Factors Shaping the “Business” Decision

Industry Perceptions

Military

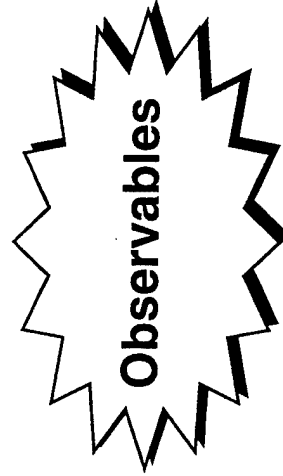
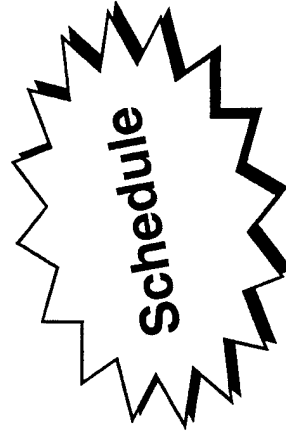
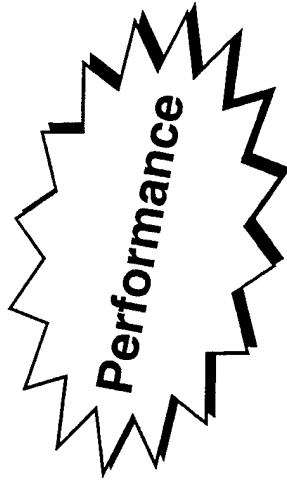
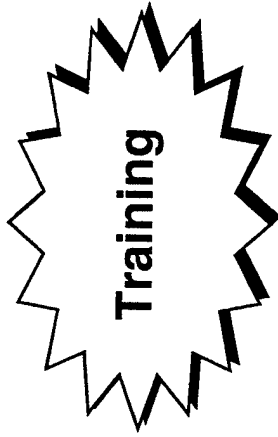
- **Contract Driven**
 - Framed in Xerox Boiler Plate RFQ
 - Specification Directed
 - No Standard Pricing
 - “Fuzzy” Decision Process For Determining “Best Value”
 - Short Range Sales Look With Long Range “Best Guesses”
 - No Way to Quickly Evaluate New Product
 - “Knee Jerk” Response To Requirements

Commercial

- **Voluntary System Driven by Market Factors**
 - Best Commercial Practice
 - Value For The Money/Standard Prices
 - Product Performance At That Price
 - Service
 - Integrity & Trust
 - New Product Evaluation through Customer Feedback
 - Long Range Marketing And Sales Goals Can Be Planned
 - Long Term Trends Visible

Strategic Metrics

“Walking the Talk”



“You Can Not Manage What You Can Not Measure”



Acquisition Reform Metrics

SPECS & STDs Reform

- # MILSPECS & STDs in ARP
- # Single Process Initiative (SPI)

Block Mods

RFP Streamlining

- # SOW & SPEC Page Count
- # DIDs/# DIDs > 1 CY

Cycletime

- # Calendar Days From RFP Release to Award

Cost Savings/Avoidance

- Annual Cost Savings
- Annual Cost Avoidance
- Unit Cost/Price Reduction As Result of Acquisition Reform

Leveraging COTS and NDI

- % FY \$\$ Obligations for COTS Equipment

- % FY \$\$ Obligations for NDI Equipment

- % Software Reuse

Integrated Product Teams

- % Contracts Mandating IPTs
- # IPTs Formally Chartered
- # IPTs Formally Trained

Observables

- Industry Feedback
- Self Assessments



Acquisition Streamlining Efficiencies & Metrics CY95 Report Feedback

"IEW Acquisition Office Identifies \$1.3 Billion in Long-Term Cost Avoidances"

Pentagon's Inside the Army, 26 February 1996

"Best set of data with METRICS on Acquisition Reform I have seen."

DASA (P), Dr. Ken Oscar

"I got your report on Acquisition Efficiencies. It was great! I really applaud you for your true commitment to acquisition reform. I further applaud you for taking the time to pull together the data to show the results. It's the best input so far."

AAE, Mr. Gil Decker

"How can we leverage the cost avoidance? What are we (DA) doing to keep OSD informed of all these great things you are doing?"

CSA, GEN Dennis Reimer

It's Now or Never

*...Change the Manner of Acquiring Material to Reduce
the Cost and Timing of Doing Business*

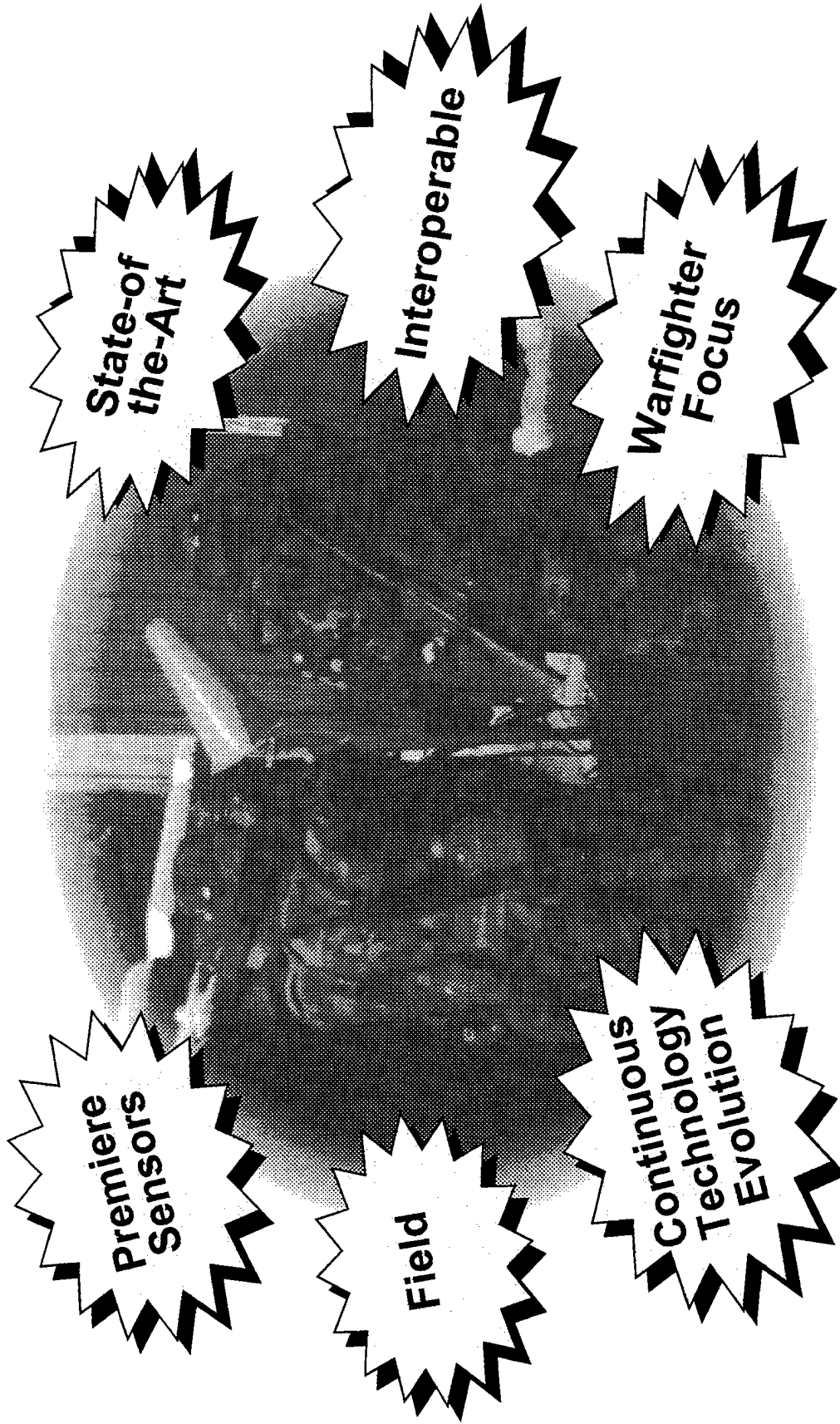
- ✓ *Heel to Toe Development*
- ✓ *Safety Net Documentation*
- ✓ *MIL/SPECs/STDs*
- ✓ *Lowest Cost Product*
- ✓ *Military Industrial Base*
- ✓ *Paper Data Collection*

*Must
Shift
the
Emphasis*

- ✓ *Streamlined/Reduced Cycle*
- ✓ *Reduced Government Oversight*
- ✓ *Performance SPECs/NGS*
- ✓ *Best Value = Full Life Cycle*
- ✓ *Commercial/World Market*
- ✓ *Electronic Data Transfer*



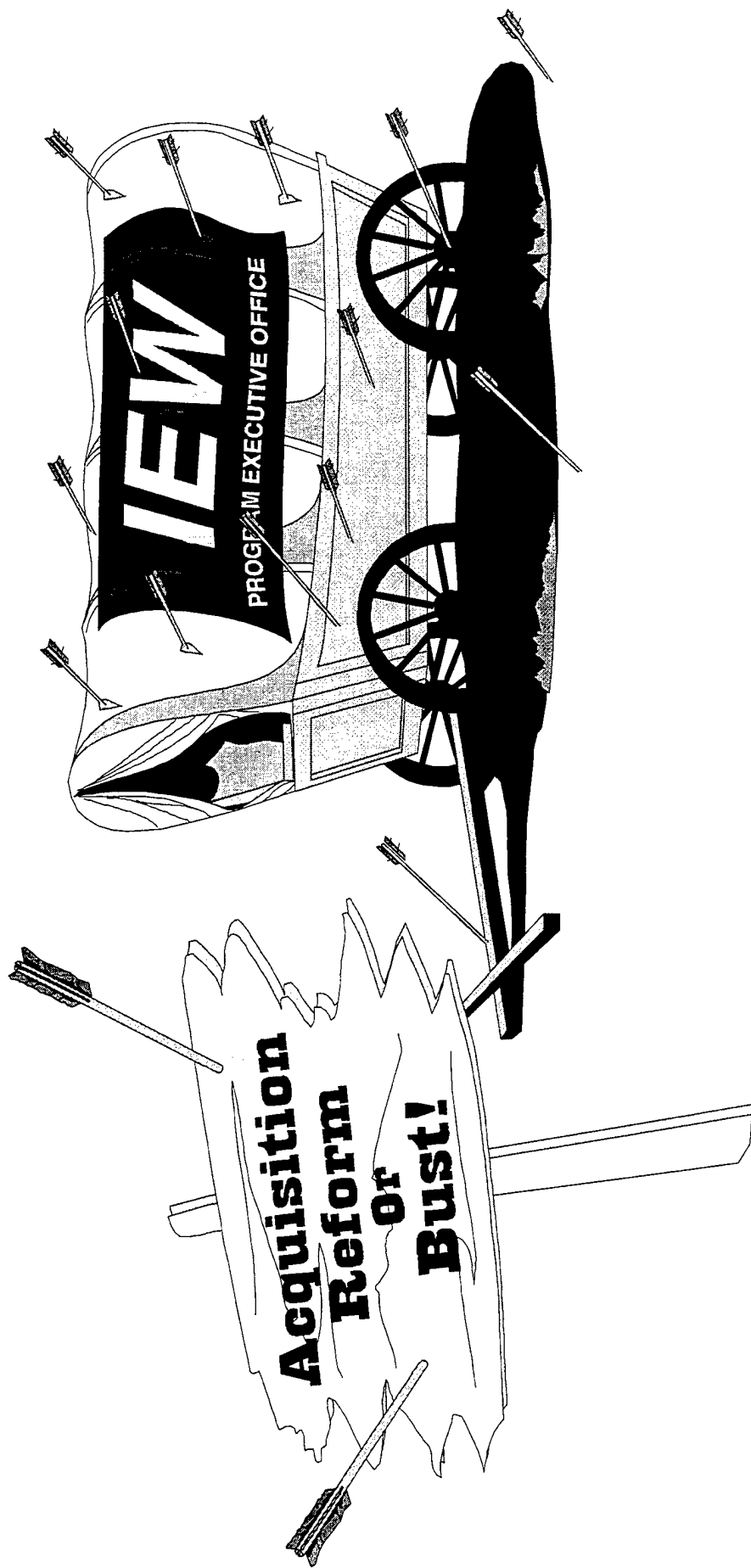
PEO IEW/Team C4IEWs: The Bottom Line



...Right Place, Right Time, Best Value



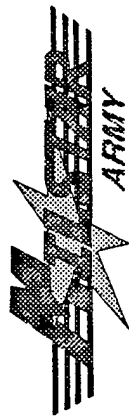
Pioneers on the Aquisition Frontier



**“You Can Tell Who the Pioneers are
by the Arrows in Their Back”**



NOTES



STREAMLINED ACQUISITION OF THE SECURE MOBILE ANTI-JAM RELIABLE TACTICAL TERMINAL (SMART-T)

MR. PAUL KIRZOW

CHIEF OPERATIONS OFFICE

PROGRAM EXECUTIVE OFFICE, COMMAND, CONTROL AND COMMUNICATIONS

UNCLASSIFIED

25 July 1996

POINT PAPER

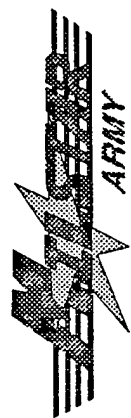
SUBJECT: Secure, Mobile, Anti-Jam, Reliable, Tactical Terminal (SMART-T)

OBJECTIVE: SMART-T is a tactical Milstar Extremely High Frequency (EHF) ground satellite communications terminal. SMART-T is a protected communications system which is highly mobile, easily transportable, and provides for flexible range extension of the Army's Mobile Subscriber Equipment (MSE) and Area Common User System (ACUS). SMART-T provides anti-jam, robust, Low Probability of Interception (LPI) and Low Probability of Detection (LPI/LPD), voice and data communications at both Low and Medium Data Rates (LDR/MDR).

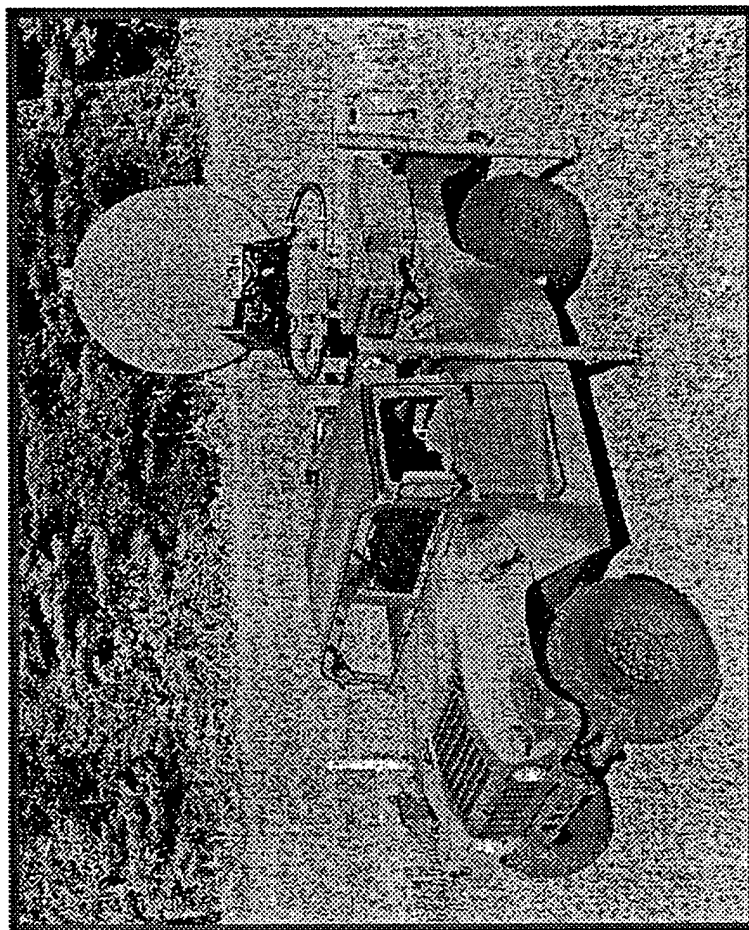
FACTS:

- SMART-T is part of the multi-service Milstar program consisting of satellites being procured by the Air Force, and terminals. The Army is procuring ground tactical terminals for all services and special users
- SMART-T characteristics:
 - Supports 16 kbps data rate family up to 1024 kbps and 1544 kbps commercial rate
 - Compatible with Milstar I & II satellites
 - Interoperable with all Milstar Terminals
 - Set Up/Tear Down in benign environment 30 minutes max
 - Unmanned operation after set-up
 - MTTR: Operator/unit Level 30 mins; direct support 90 mins; general support 2 hrs
 - Crew Size: 1 dedicated and 1 MSE operator for Set-Up/Tear-Down
- The SMART-T program employed a competitive development strategy
 - The Army awarded dual development contracts to Raytheon (Marlboro, MA) and Rockwell (Richardson, TX) in Nov 92
 - Each contractor designed, developed, tested and fabricated six Engineering Development Model (EDM) terminals
- A downselection occurred, and on 7 February 1996 PM Milstar (Army) and the Communications-Electronics Command (CECOM) Acquisition Center awarded a Low Rate Initial Production/Full Rate Production (LRIP/FRP) contract to Raytheon Company
 - The Firm Fixed Price contract includes provisions for a comprehensive failure free warranty, paperless data submissions, and partnering with industry
- A total of 387 terminals are being procured as part of the LRIP/FRP contract for Army, USAF, USMC, US Navy, Joint Communications Support Element (JCSE), and other DoD Special Users
- The first FRP option will be awarded following a successful Milestone III Decision Review
- The SMART-T will be the only MDR capable terminal available to utilize the Milstar II (MDR) payload upon launch in early FY99

COL Michael Mazzucchi
Project Manager Milstar (Army)
(908) 532-9767, 4001



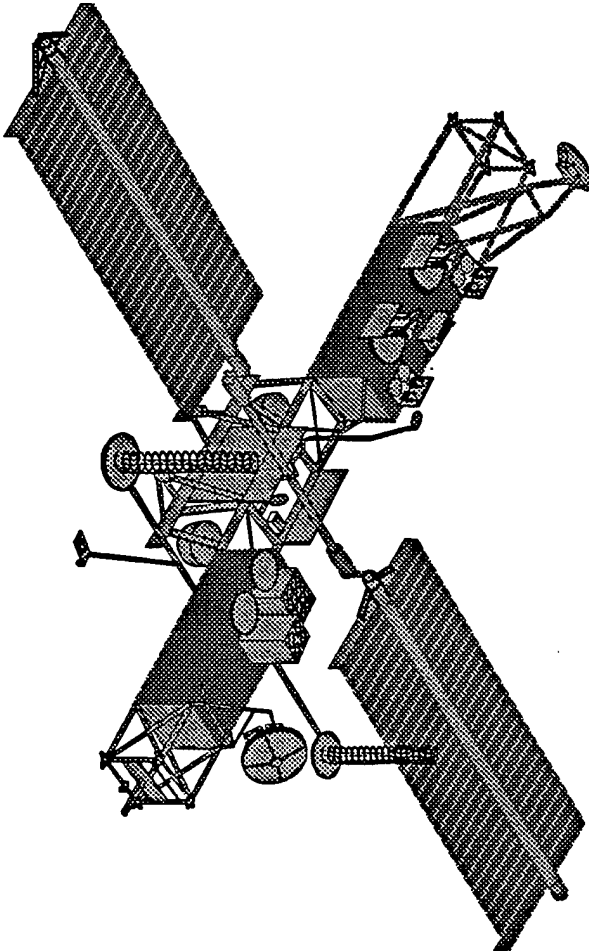
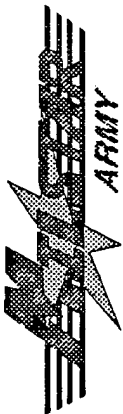
SMART-T RAYTHEON



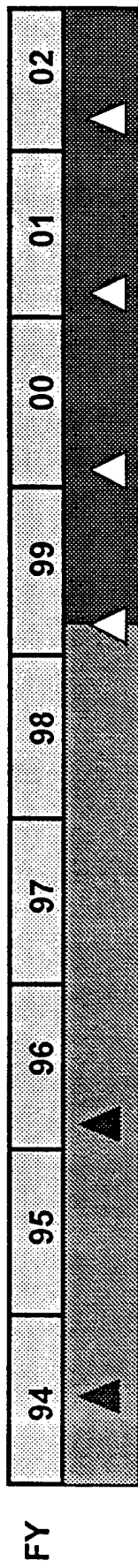
LOW RATE INITIAL PRODUCTION
CONTRACT AWARDED 7 FEBRUARY 1996

MILSTAR SATELLITE

WORLDWIDE ANTI-JAM COMMUNICATIONS



LAUNCH DATES

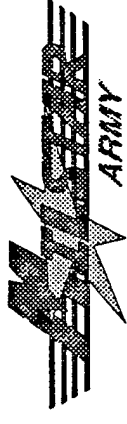


1 SCAMP BLOCK 1

2 3 4 5 6
SMART - T

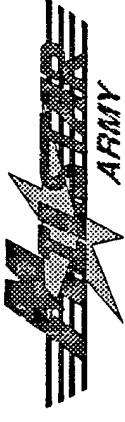
 LDR
  LDR / MDR

ACQUISITION STRATEGY



- DEVELOPMENT - TWO CONTRACTS
- PRODUCTION - DOWN SELECT
 - ONE CONTRACTOR
 - FIXED PRICE
 - » LOW RATE INITIAL PRODUCTION (LRIP)
 - » FULL SCALE PRODUCTION (FSP)

SMART-T ROAD TO AWARD



DEVELOPMENT

- ✓• AAE MILESTONE APPROVAL (MSII) MAY 92
- ✓• DUAL DEVELOPMENT CONTRACTS AWARDED NOV 92

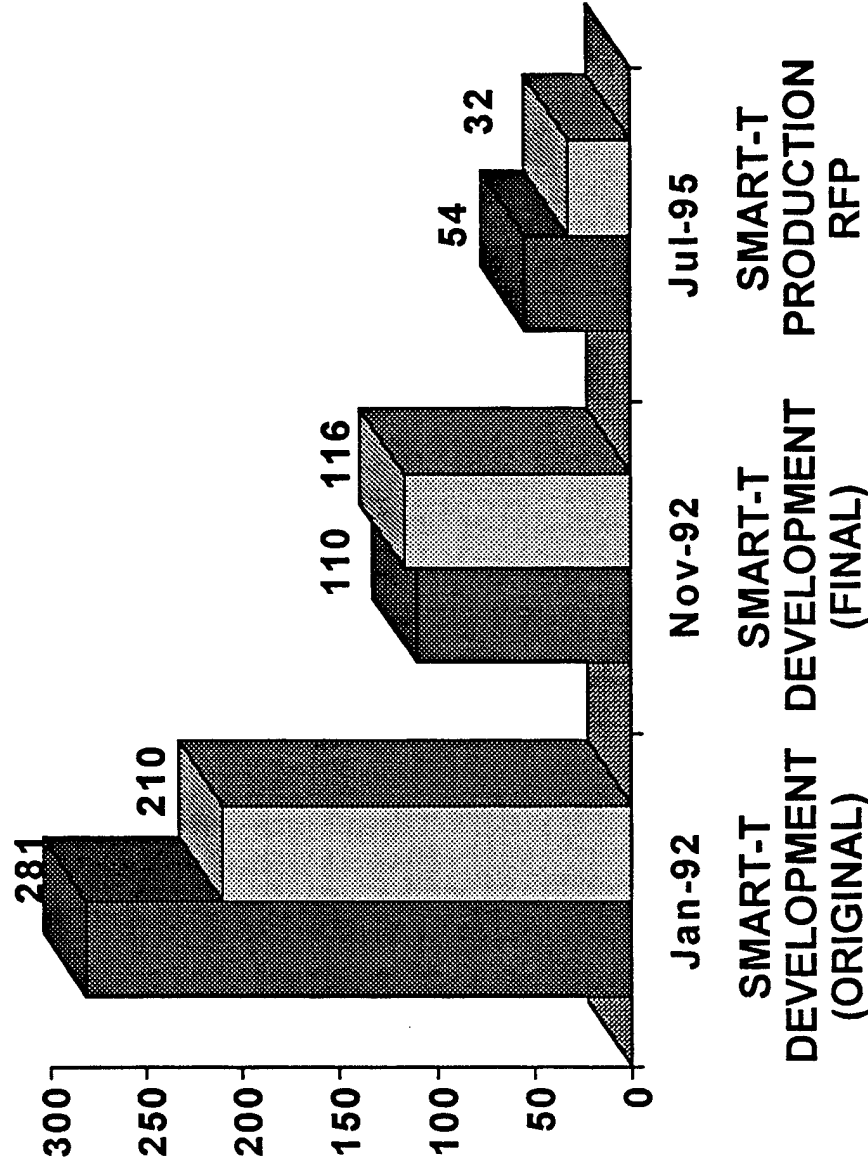
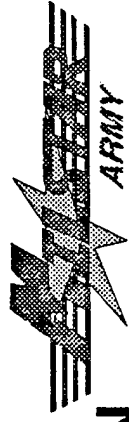
LRIP/FSP DOWN-SELECT

- ✓• INDUSTRY ADVANCE PLANNING INVOLVEMENT JAN 94 - AUG 95
- ✓• DRAFT DOCUMENTS ON EBB FOR COMMENT DEC 94 - JUL 95
- ✓• AAE APPROVES J&A FOR LIMITED COMPETITION JUL 95

✓= ACCOMPLISHED ON SCHEDULE

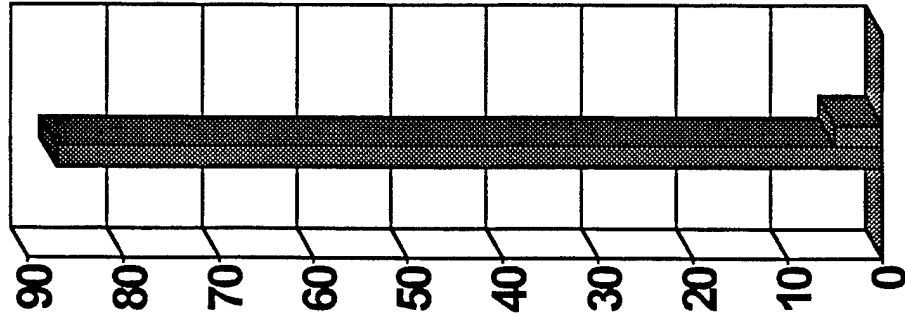
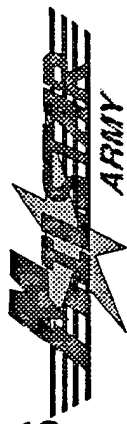
SMART-T STREAMLINING

PERFORMANCE BASED DOCUMENTATION



- STATEMENT OF WORK PAGES
- CONTRACT DATA REQUIREMENTS LIST

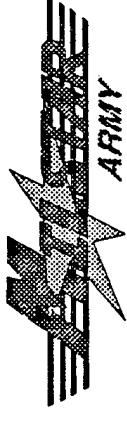
SMART-T STREAMLINING MILITARY STANDARDS/SPECIFICATIONS REDUCTIONS



- SCRUBBED TO 5 ESSENTIAL MIL-STDs/SPECS (-82)
- ESSENTIAL MILITARY REQUIREMENTS
- NO COMMERCIAL EQUIVALENTS



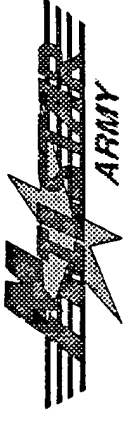
**SMART-T INNOVATION
TEAMING FOR SUCCESS**



- **TEAM FORT MONMOUTH**
- **SERVE THROUGH ENTIRE ACQUISITION PROCESS**
 - » **ACQUISITION PROFESSIONALS**
 - » **EMPOWERED, ACCOUNTABLE**
 - » **REPLACE SEQUENTIAL REVIEWS WITH
CONCURRENT REVIEW**

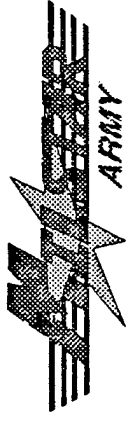
SMART-T INNOVATION

INTEGRATED PRODUCT TEAMS (IPTs)



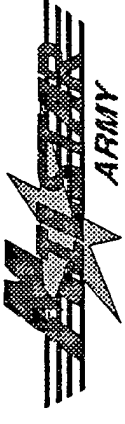
- **ACQUISITION REQUIREMENTS PACKAGE
DEVELOPMENT BY IPT**
- **LIFE CYCLE SUSTAINMENT IPT IN CONTRACT**
- **PARTNERING WITH INDUSTRY**

**SMART-T INNOVATION
SOLICITATIONS**



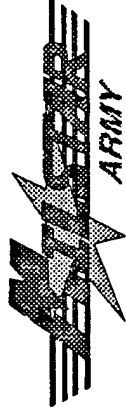
- ORAL PROPOSALS
 - EXECUTIVE SUMMARY
 - ALLOWED THE EVALUATORS TO “HIT THE GROUND RUNNING”
- CONTRACTOR FLEXIBILITY TO PROPOSE
 - SCHEDULE
 - DESIGN

SMART-T INNOVATION PAPERLESS ENVIRONMENT



- **DEVELOPMENT**
 - **FIRST PAPERLESS ELECTRONIC BULLETIN BOARD
(EBB) SOLICITATION AT CECOM**
- **PRODUCTION**
 - **EBB FOR DRAFTS, COMMENTS AND FINAL RFP**
- **POST AWARD**
 - **ELECTRONIC CDRL SUBMISSIONS**
 - **TOTAL ELECTRONIC CDRL REVIEW AND
GOVERNMENT MANAGEMENT**

SMART-T INNOVATION WARRANTY

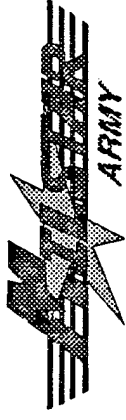


- **FIVE (5) YEAR FAILURE FREE WARRANTY**
- **COVERAGE**
 - **INDIVIDUAL: CORRECTS ALL FAILURES**
 - **SYSTEMIC: CORRECTS REPETITIVE DEFECTS/FAILURES**
 - **CONFLICT /WAR: T&M FOR COMBAT DAMAGE,
WILLFUL MISCONDUCT**
- **INCENTIVIZES CONTRACTOR TO IMPROVE
QUALITY/RELIABILITY**

WIN WIN SITUATION FOR CONTRACTOR AND USER

SMART-T

A NEW WAY OF DOING BUSINESS



COST ESTIMATES

\$790M

PRE MS II

~\$550M

MS II

\$<250M

MS III

Competition

Performance Spec

Mil-Spec/Std Reductions

Failure Free Warranty

Reduced Oversight

Teaming for Success

**Integrated Product Teams
(IPTs)**

Partnering with Industry



NOTES

SESSION II

BATTLEFIELD SUSTAINMENT

MODERATOR

MR. ANTHONY A. LaPLACA

ACTING DIRECTOR
CECOM LOGISTICS AND
READINESS CENTER

Session II

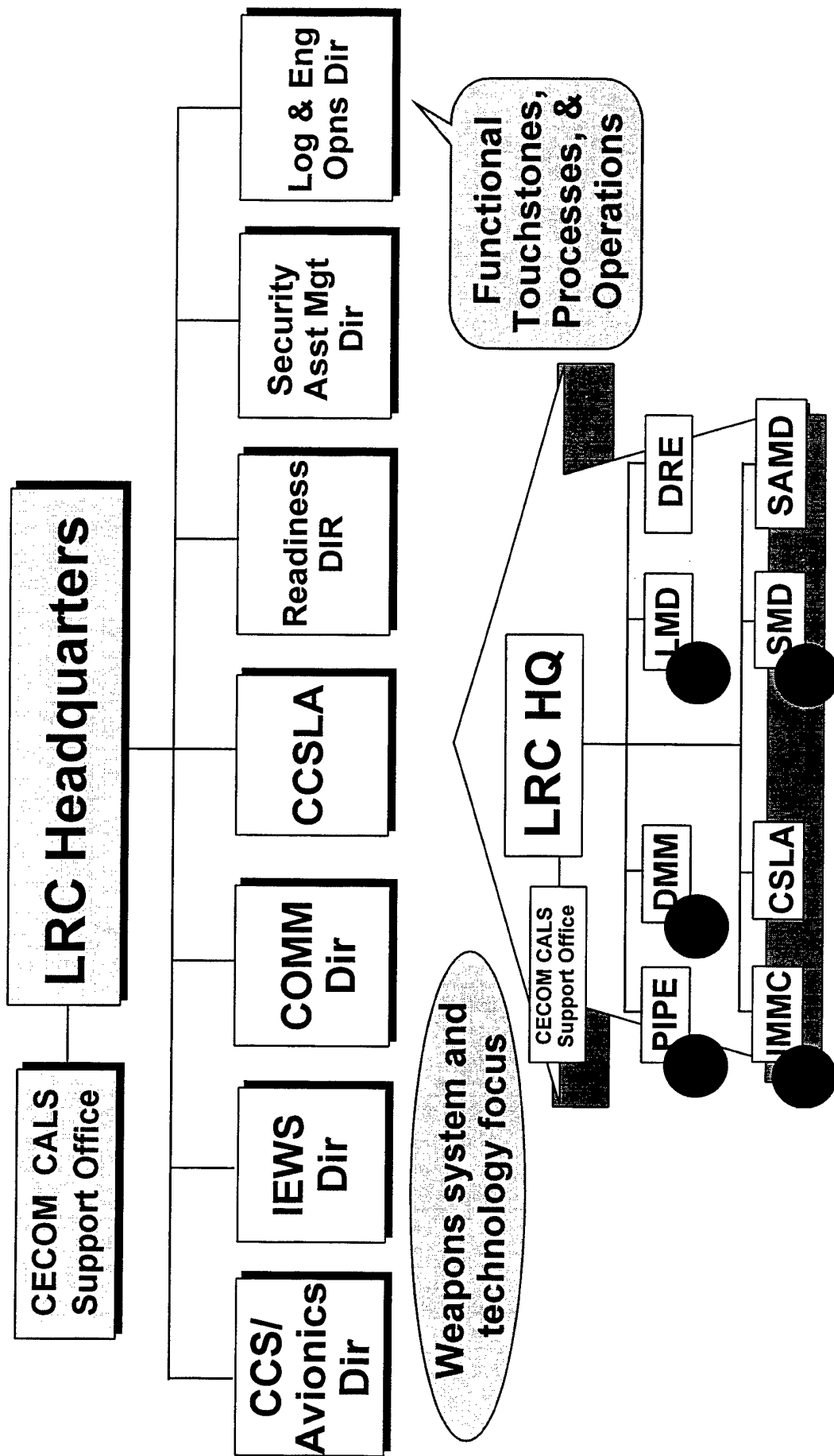
BATTLEFIELD SUSTAINMENT



**Mr. Anthony A. LaPlaca
Acting Director, CECOM Logistics
and Readiness Center**

UNCLASSIFIED

Our Structure



SPARES BUSINESS

OPPORTUNITY

TITLE:

AN/APR-39

OBJECTIVE: **RADAR DETECTING SET**
SUSTAINMENT

TYPE:

IDIQ

KEY MILESTONES:

RFP RELEASE - 2Q FY 97

AWARD - 4Q FY97

VALUE:

\$1.5 - 2.0 M

POC/TELEPHONE:

TECH:

SKIP RUMMEL, 908-427-5154

ACQ:

LINDA MCGARRY, 908-532-4368

SPARES BUSINESS

OPPORTUNITY

TITLE: H-250
HANDSET
SUSTAINMENT
OBJECTIVE: IDIQ
TYPE: RFP RELEASE - 2Q FY 97
KEY MILESTONES: AWARD - 4Q FY97
VALUE: \$3.5 - 4.5M
POC/TELEPHONE:
TECH: LEN JACQUES, 908-532-1050
ACQ: KEVIN LOESCH, 908-532-1711

SPARES BUSINESS

OPPORTUNITY

TITLE: AN/USD-9A,B,C,D
(GUARDRAIL/AQL)
OBJECTIVE: SUSTAINMENT
TYPE: IDIQ
KEY MILESTONES: RFP RELEASE - 2Q FY 97
AWARD - 4Q FY97
VALUE: \$10 - 15M
POC/TELEPHONE:
TECH: JOHN SCHERAN, 908-427-5035
ACQ: LOIS PIERMATTEI, 908-532-5250

Session II - Panel Members

- **Operating and Support Cost Reduction (OSCR)
Mr. Giuseppe Sgroi, Logistics and
Engineering Operations Directorate,
CECOM**
- **New Foreign Military Sales (FMS) Business
Opportunities, Mr. Eugene Bennett,
Director, Security Assistance
Management, CECOM**



Session II - Panel Members

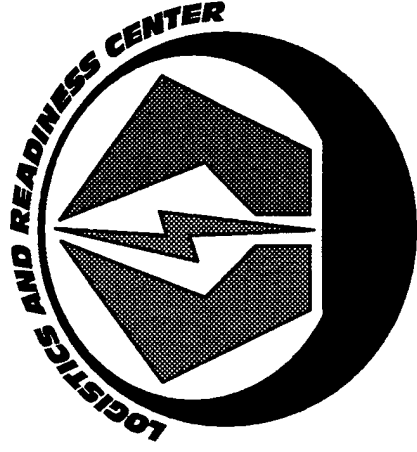
- **Software Engineering Omnibus Contracts
Mr. Eugene Boyle, Software
Engineering Directorate, CECOM**



NOTES

OPERATING AND SUPPORT
COST REDUCTION (OSCR)
PROGRAM

Mr. Giuseppe Sgroi
Value Engineering Program Manager
Logistics and Readiness Center



UNCLASSIFIED

POINT PAPER

AMSEL-LC-LEO-EP
22 July 1996

SUBJECT: Operational Support Cost Reduction (OSCR) Defense Business Operating Fund (DBOF) Initiative

PURPOSE: To inform participants at the Advance Planning Briefing for Industry of the availability of the OSCR-DBOF initiative and request active participation in identifying candidate projects.

FACTS.

1. HQDA has allocated 1% of AMC's DBOF Operating Cost Authority, approximately \$21M, for the purpose of redesigning Secondary Items. The goal is to reduce the unit cost of the item and/or extend the useful life of the item and, thereby, reduce the cost to the soldier in the field. This program has been established as a one year trial effort and its future continuance is dependent upon success in identifying projects that result in user savings.
2. A dedicated OSCR DBOF team has been established in the Logistics and Readiness Center to work with the Team Fort Monmouth community and private industry in identifying potential candidate programs and preparing the required proposal packages. Projects which require more than \$50K in investment must be submitted to AMC with a validated Economic Analysis (EA) for approval. Projects below \$50K are locally approved and require a scaled down version of the EA.
3. At the Advance Planning Briefing for Industry, participants will be requested to:
 - A. Review current and future CECOM contracts for secondary items whose redesign will result in future cost savings.
 - B. Prepare and submit Value Engineering Change Proposals for candidate secondary items. The Value Engineering Incentive contract clause provides the incentive for industry participation by not only documenting the redesign, but also allowing industry to participate in the savings realized.

AMSEL-LC-LEO-EP

SUBJECT: Operational Support Cost Reduction (OSCR) Defense Business Operating Fund (DBOF) Initiative

C. Work closely with the OSCR-DBOF team to identify information required to complete an EA on the candidate project. The EA provides AMC with the justification for the expenditure of funds by using conventional, analytical techniques to compare the redesign alternative to the status quo.

4. The briefing will give notice of known future requirements resulting from the OSCR/DBOF program.

ACTION OFFICER:
GIUSEPPE SGROI
VE PROGRAM MANAGER

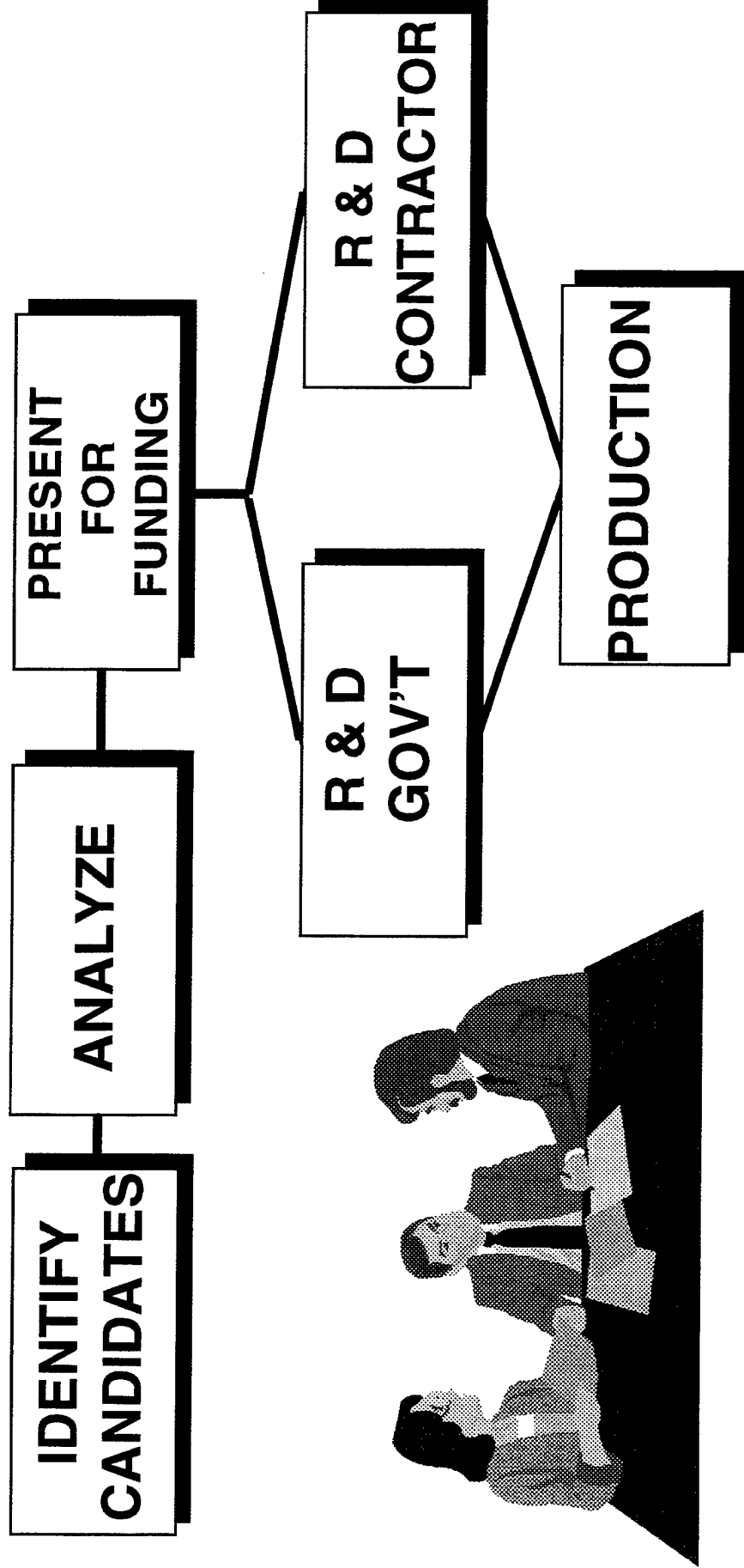
OSCR PROGRAM

- *CREATED TO REDUCE HIGH OPERATING AND SUPPORT COST*
- *GOOD INTENTION BUT SEED MONEY TO FUND PROJECTS WAS NOT IDENTIFIED*
- *DEPARTMENT OF THE ARMY IDENTIFIED NEED TO SUPPORT THE PROGRAM AND ISSUED NEW POLICY*

OSCR DBOF INITIATIVE

- *NEW POLICY APPROVED USE OF 1 % OF DBOF OPERATING COST AUTHORITY TO FUND OSCR PROJECTS*
- *CECOM HAS RECEIVED APPROVAL TO FUND \$2.8M IN OSCR PROJECTS*
- *APPROVAL IS FORTHCOMING TO FUND AN ADDITIONAL \$2.6M IN PROJECTS*

OSCR PROCESS



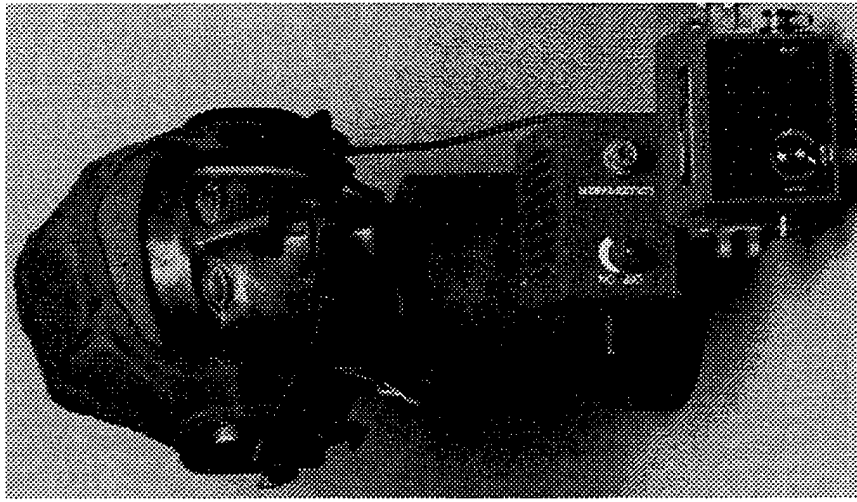
WHAT CAN BE AN OSCR DBOF PROJECT?

- **MUST BE APPLIED TO SECONDARY ITEMS i.e. spare parts, sub-systems**
- **IT MUST ADDRESS EITHER:**
 - ♦ **OBSOLESCENCE**
 - ♦ **OUTDATED TECHNOLOGY**
 - ♦ **HIGH COST COMPONENTS**
 - ♦ **HIGH FAILURE RATES**

WHAT CAN BE AN OSCR DBOF PROJECT?

- **IT MUST RESULT IN EITHER:**
 - ♦ **UNIT COST REDUCTION**
 - ♦ **INCREASED MEAN TIME
BETWEEN FAILURE (MTBF)**
 - ♦ **REDUCED O & S COST**

Vehicular Intercom System (VIS) Headset



Add Connector
To Make
Headset
Repairable

PROJECTED RESULTS

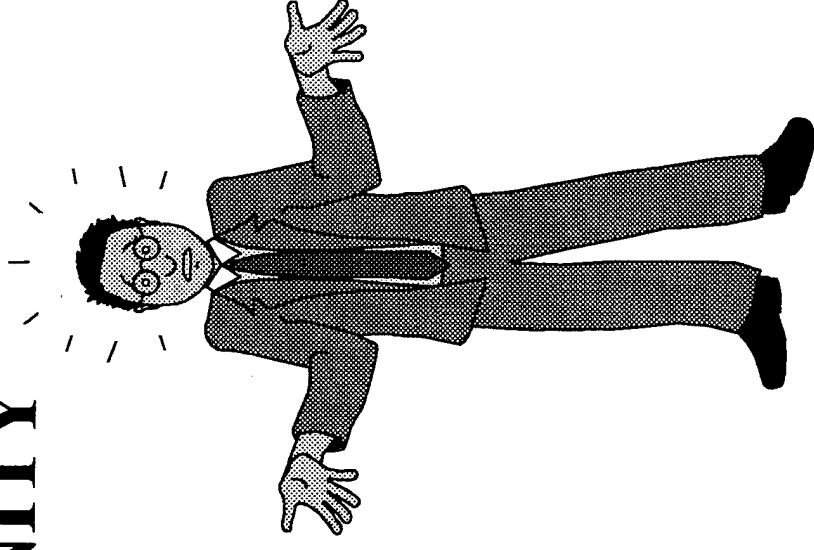
- ◆ **\$44.5M 10 YR O&S
Cost Savings**
- ◆ **\$20 Connector Added**
- ◆ **Field Replacement of
Failed Earcup
Assembly vs.
Throw-away of
Entire Headset**

WHY SHOULD I PARTICIPATE?

♦NEW BUSINESS OPPORTUNITY

♦SHARE IN THE SAVINGS

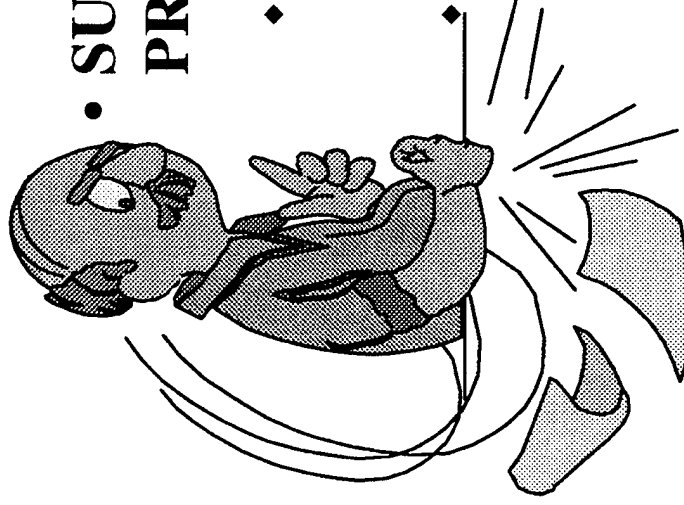
♦BETTER PRODUCTS FOR
THE SOLDIER



HOW DO I PARTICIPATE?

USE VALUE ENGINEERING PROGRAM

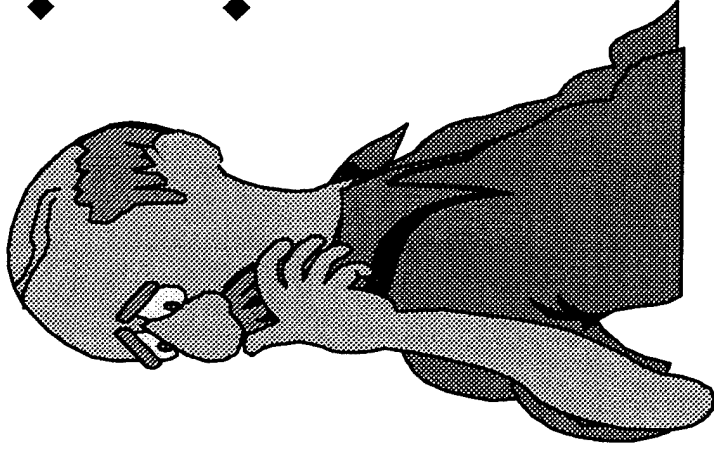
- IF YOU ARE CURRENTLY BUILDING THE COMPONENT FOR CECOM:



- SUBMIT A VALUE ENGINEERING CHANGE PROPOSAL (VECP)
- IN THE PAST MOST O&S VECPS WERE NOT APPROVED, “LACK OF \$\$”
- NOW, SEED MONEY IS AVAILABLE FOR NON RECURRING ENGINEERING (NRE) COSTS

HOW DO I PARTICIPATE?

- IF YOU DO NOT HAVE A CONTRACT WITH CECOM
 - ♦ LOOK FOR NEW BUSINESS OPPORTUNITIES IN REDESIGN EFFORTS
 - ♦ ESTABLISHING NEW PROCEDURES TO ACCEPT UNSOLICITED PROPOSALS, “NEED INDUSTRY INPUTS”

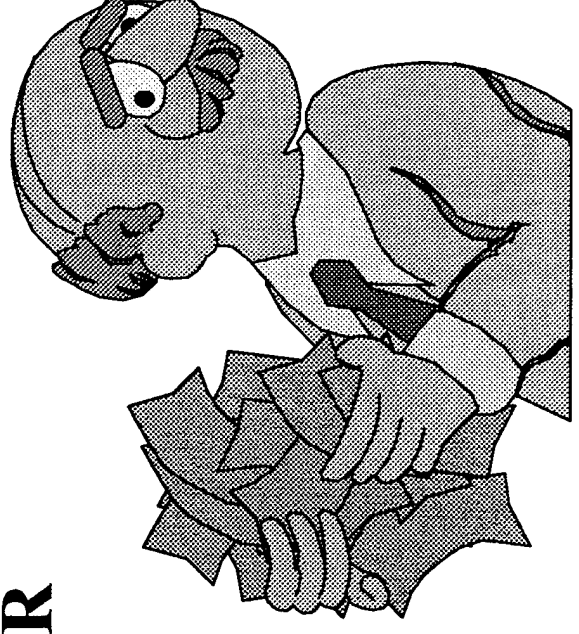


VE PARTNERING PROGRAM

- **CONDUCT JOINT GOVERNMENT/
INDUSTRY VE WORKSHOPS**

- **CANDIDATES IDENTIFIED BY
GOV'T OR CONTRACTOR**

- **SHARE IN BENEFITS**



VE PARTNERING WORKSHOP RESULTS

•CECOM INVESTED \$20K

**♦ PP-7815 POWER PROCESSOR
PROJECTED SAVINGS
\$6.8M**

**♦MX-7778/GRC SUPPRESSOR
PROJECTED SAVINGS
\$1.26M**

OSCR PROCESS



IDENTIFY
CANDIDATES

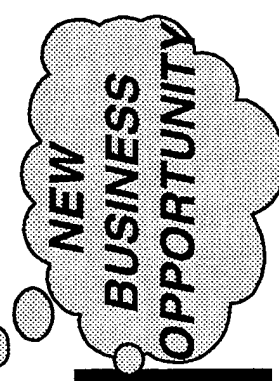
ANALYZE

PRESENT
FOR
FUNDING

R & D
GOV'T

R & D
CONTRACTOR

PRODUCTION



CONTRACT OPPORTUNITY

TITLE: AN/PPS-5B, BATTLEFIELD
SURVEILLANCE RADAR

OBJECTIVE: SYSTEM SPARES UPGRADE

TYPE: FIRM FIXED PRICE

RFP RELEASE: FY 97-98

VALUE: \$4-12M

POC/TELEPHONE:

TECH: BRADLEY CHENEY, (908) 532-5784

ACQ: ALEX MATAKA, (908) 532-5207

CONTRACT OPPORTUNITY

TITLE: MERCURY BATTERY
REPLACEMENT PROGRAM

OBJECTIVE: CHANGE BATTERY CHEMISTRY

TYPE: FIRM FIXED PRICE

REP RELEASE: FY 96-97

VALUE: \$4 - 5M

POC/TELEPHONE:

TECH: PETE RATHEMACHER, 908-532-6798

ACQ: BOB REGAN, 908-532-1982

FOR MORE INFORMATION

POC: GIUSEPPE SGROI

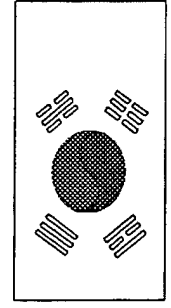
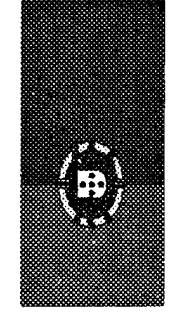
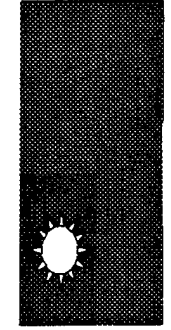
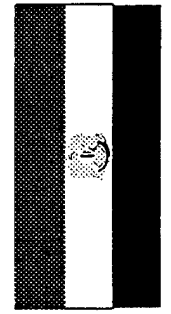
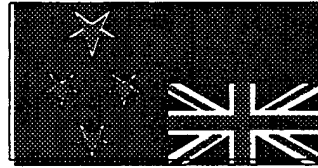
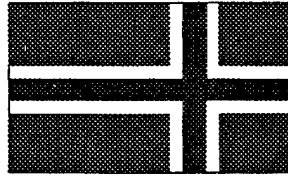
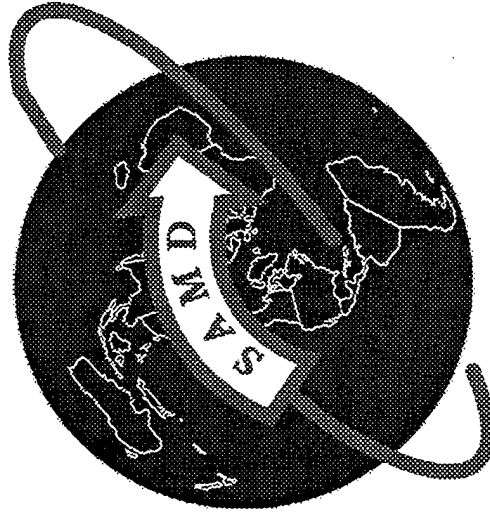
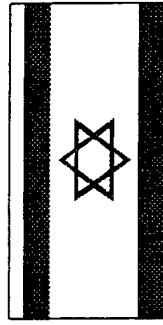
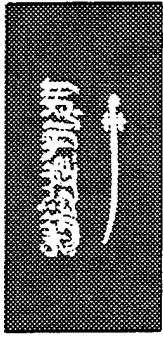
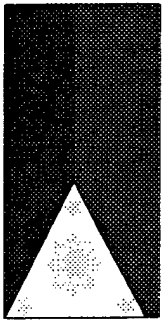
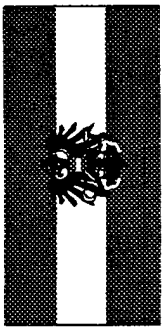
(908) 532-2810

email:

sgroi@doim6.monmouth.army.mil



NOTES



NEW FOREIGN MILITARY SALES (FMS) BUSINESS OPPORTUNITIES

EUGENE P. BENNETT
DIRECTOR
SECURITY ASSISTANCE MANAGEMENT
UNCLASSIFIED

POINT PAPER

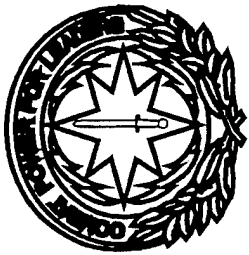
SUBJECT: New Foreign Military Sales (FMS) Markets

PURPOSE: To provide representatives from communications and electronics companies with an overview of future sales opportunities in the FMS arena. This presentation will be made at the Advanced Planning Briefing for Industry (APBI) to be held 6-7 August 1996.

FACTS:

- We will be addressing the new market areas FMS is entering. We are currently processing requirements for peacekeeping missions in Bosnia, and potential involvement in countries such as Poland and Lithuania.
- Foreign military customers of the U.S. Government will benefit from competition if a number of companies are able to submit bids for their requirements.
- The Security Assistance Management Directorate portion of the APBI will give industry notice of known future FMS requirements enabling a broader range of companies to compete for FMS contracts.
- BRIEFER: Mr. Eugene P. Bennett, Director, Security Assistance Management Directorate, AMSEL-LC-SA, (908) 532-2155.

Mary Jo Maruka
ACTION OFFICER:
MARY JO MARUKA
Security Assistance
Management Directorate
(908) 532-8650



**CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE**

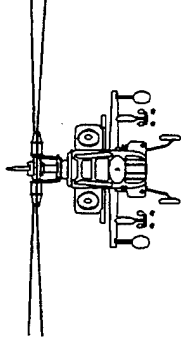
AGENDA

- **FMS BUSINESS**
- **BENEFITS**
- **STANDARD/NON-STANDARD BUSINESS**
- **FOREIGN MILITARY SALES PROCESS**
- **FOREIGN MILITARY FINANCING**
- **NEW FOREIGN MILITARY SALES MARKETS**
- **NEW HORIZONS**
- **CONTRACT OPPORTUNITIES**



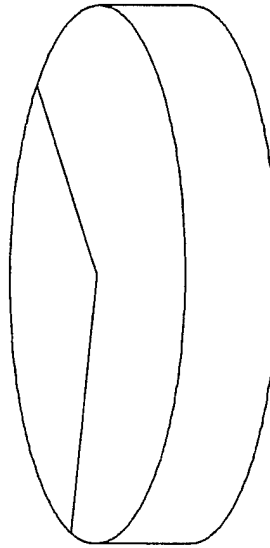
**CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE**

FMS BUSINESS



LOADS

229 OTHER COMMAND

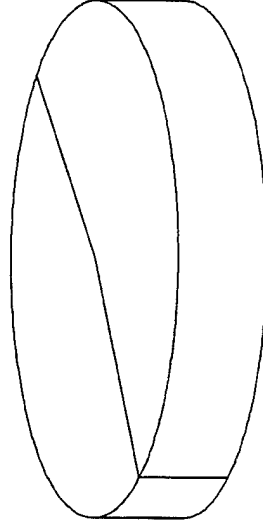


429 CECOM

TOTAL - 658

WORKLOAD VALUES

\$819M SUPPORT TO OTHER COMMANDS



CECOM \$859M


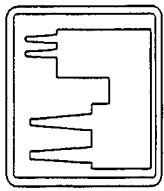
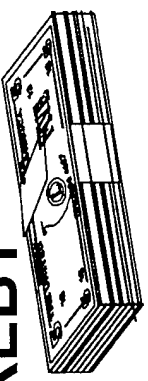

TOTAL - \$1.7B





**CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE**

BENEFITS

- **INVESTMENT IN NATIONAL SECURITY AND WELL-BEING
OF ALL PARTICIPANTS**

- **SUSTAINS THE U.S. DEFENSE
INDUSTRIAL BASE**

- **INCREASES ARMY ACQUISITIONS, THEREBY
REDUCING TOTAL ACQUISITION COSTS**

- **HELPS FRIENDLY COUNTRIES BECOME MORE
SELF-SUFFICIENT**


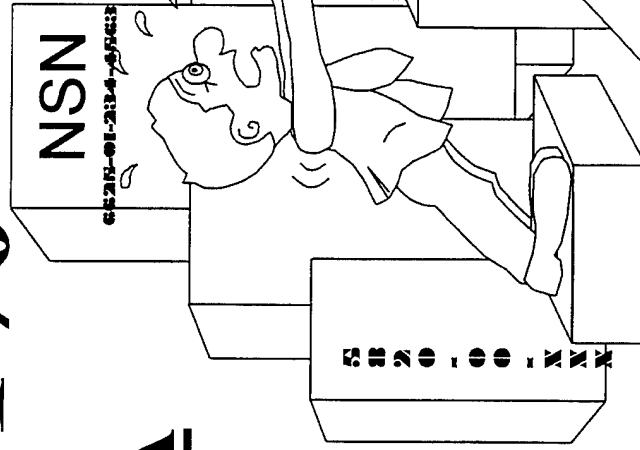
FOREIGN MILITARY SALES

FOR

STANDARD & NON-STANDARD BUSINESS

41%

TPA



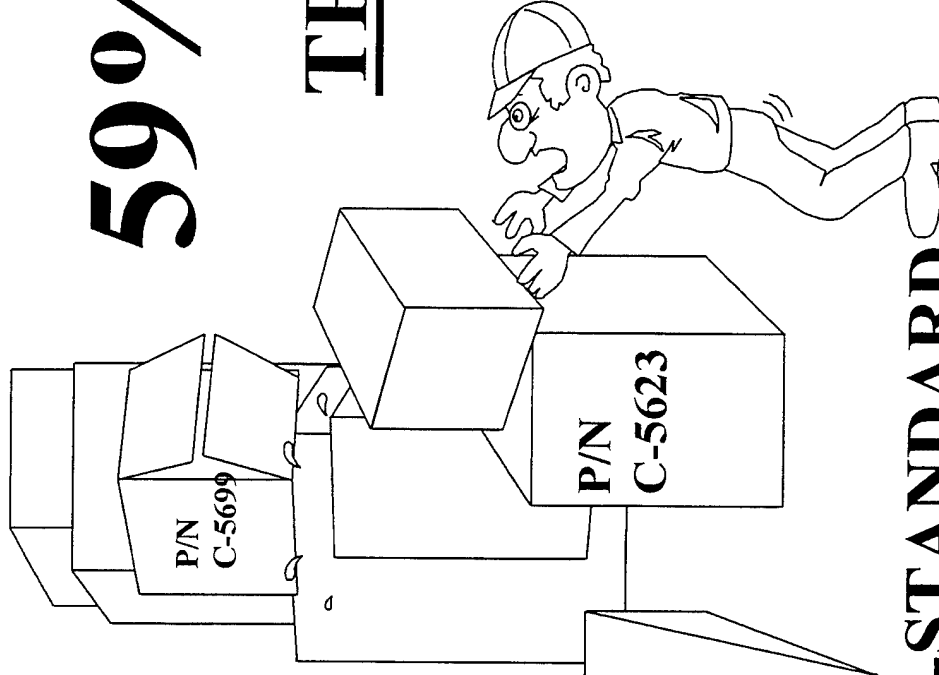
NSN

65215-01-2134-4564

5320-00-XXXX

59%

TPA



P/N
C-5623

P/N
C-5699

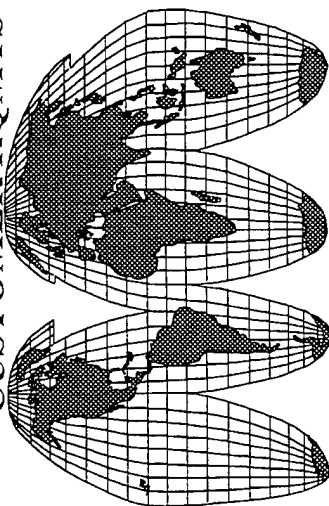
STANDARD

NON-STANDARD

SAMD TOTAL PACKAGE APPROACH INCLUDES STD & NON-STD HARDWARE

FOREIGN MILITARY SALES PROCESS

CUSTOMER RQMTS



LETTER OF REQUEST
(LOR)

SECURITY
ASSISTANCE
ORGANIZATION
(SAO)

U.S. ARMY
SECURITY
ASSISTANCE
COMMAND
(USASAC)

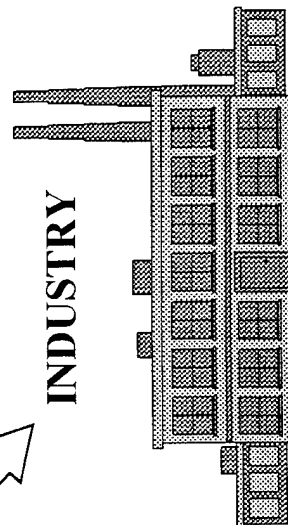
SOLICITATION

LETTER
OF OFFER/
OF ACCEPTANCE
(LOA)

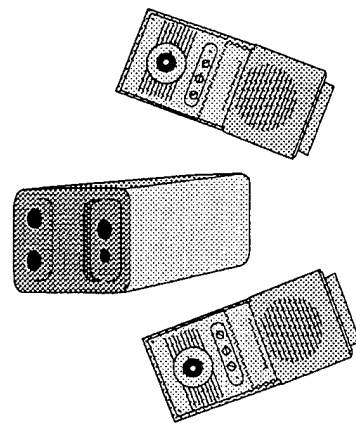
CECOM



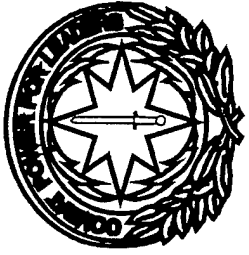
INDUSTRY



CONTRACT
AWARDED



ITEM DELIVERED



**CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE**

**FOREIGN MILITARY
FINANCING**

- CONGRESS APPROPRIATES MONEY TO CERTAIN COUNTRIES TO BUY DEFENSE EQUIPMENT
- ALLOWS ALLIES TO IMPROVE THEIR DEFENSES
- SUPPORTS THE PRESIDENT'S WARSAW INITIATIVE
- ESTABLISHED BALTIC PEACEKEEPING BATTALION



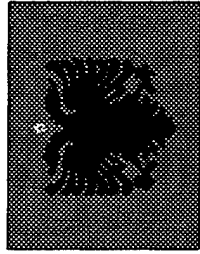
CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE

NEW FMS MARKETS

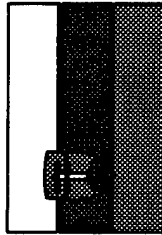
**AS A RESULT OF THE IMPLEMENTATION OF THE
WARSAW INITIATIVE, AT LEAST 10 "NEW" CUSTOMERS
WILL PROCURE COMMAND, CONTROL, COMMUNICATION
AND COMPUTERS (C4) EQUIPMENT THROUGH THE
FOREIGN MILITARY SALES PROGRAM USING
FOREIGN MILITARY FINANCING**

NEW HORIZONS

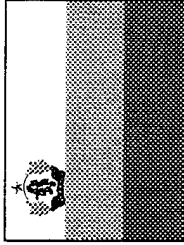
JUST THE
BEGINNING!



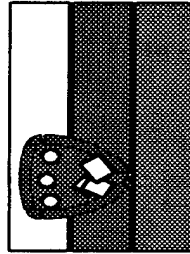
ALBANIA



SLOVAKIA



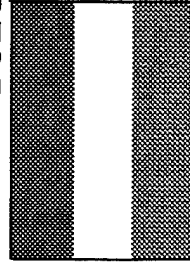
BULGARIA



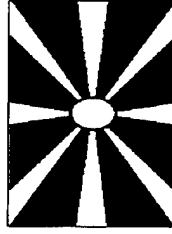
SLOVENIA



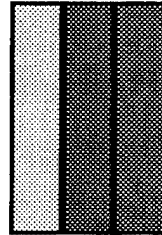
ESTONIA



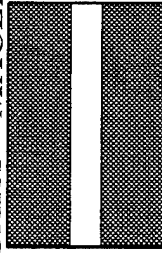
HUNGARY



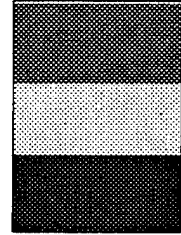
MACEDONIA



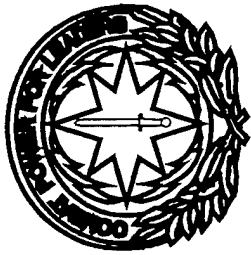
LITHUANIA



LATVIA



ROMANIA



CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE

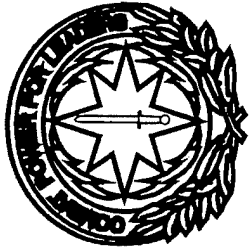
CONTRACT
OPPORTUNITIES

**TITLE: VHF RADIO SYSTEMS, (AN/VRC-46 & 47;
AN/VRC-87 THRU 92; AN/PRC-77 & 119)**

PROPOSED CONTRACT TYPE: FIRM FIXED PRICE
RFP DATE: 1QTR FY 97

ESTIMATED QUANTITY: 314 TOTAL REQUIREMENT
ESTIMATED VALUE: \$3-4M

SAMD POC/TEL: LUETRELL MELVIN (908) 532-8630
CONTRACTING OFFICER: LINDA LEFKER
(908) 532-2677



CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE

CONTRACT
OPPORTUNITIES

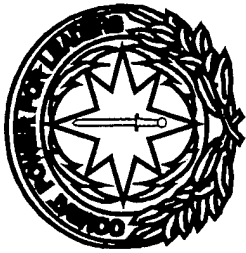
TITLE: PSC-5 ENHANCED MANPACK ULTRA HIGH
FREQUENCY TERMINAL (EXPORTABLE
VERSION)

PROPOSED CONTRACT TYPE: UNKNOWN
RFP DATE: 3QTR FY 97

ESTIMATED QUANTITY: 4 EACH PER COUNTRY
ESTIMATED VALUE: \$75 -\$100K PER SYSTEM

NOTE: COUNTRY MUST GAIN SATELLITE ACCESS
THRU THEIR OWN CHANNELS

SAMD POC/TEL: DEBORAH LE VITIN (908) 532-8646



CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE

CONTRACT
OPPORTUNITIES

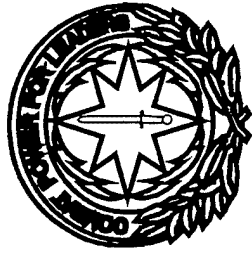
TITLE: EARTH TERMINALS INMARSAT-M

PROPOSED CONTRACT TYPE: UNKNOWN
RFP DATE: 3QTR FY97

ESTIMATED QUANTITY: 2 EACH PER COUNTRY
ESTIMATED VALUE: \$30-\$40K PER SYSTEM

NOTE: COUNTRY MUST GAIN SATELLITE ACCESS
THRU THEIR OWN CHANNELS

SAMD POC/TEL: DEBORAH LE VITIN (908) 532-8646



CECOM
SECURITY ASSISTANCE
MANAGEMENT DIRECTORATE

CONTRACT
OPPORTUNITIES

TITLE: WIDE AREA NETWORK

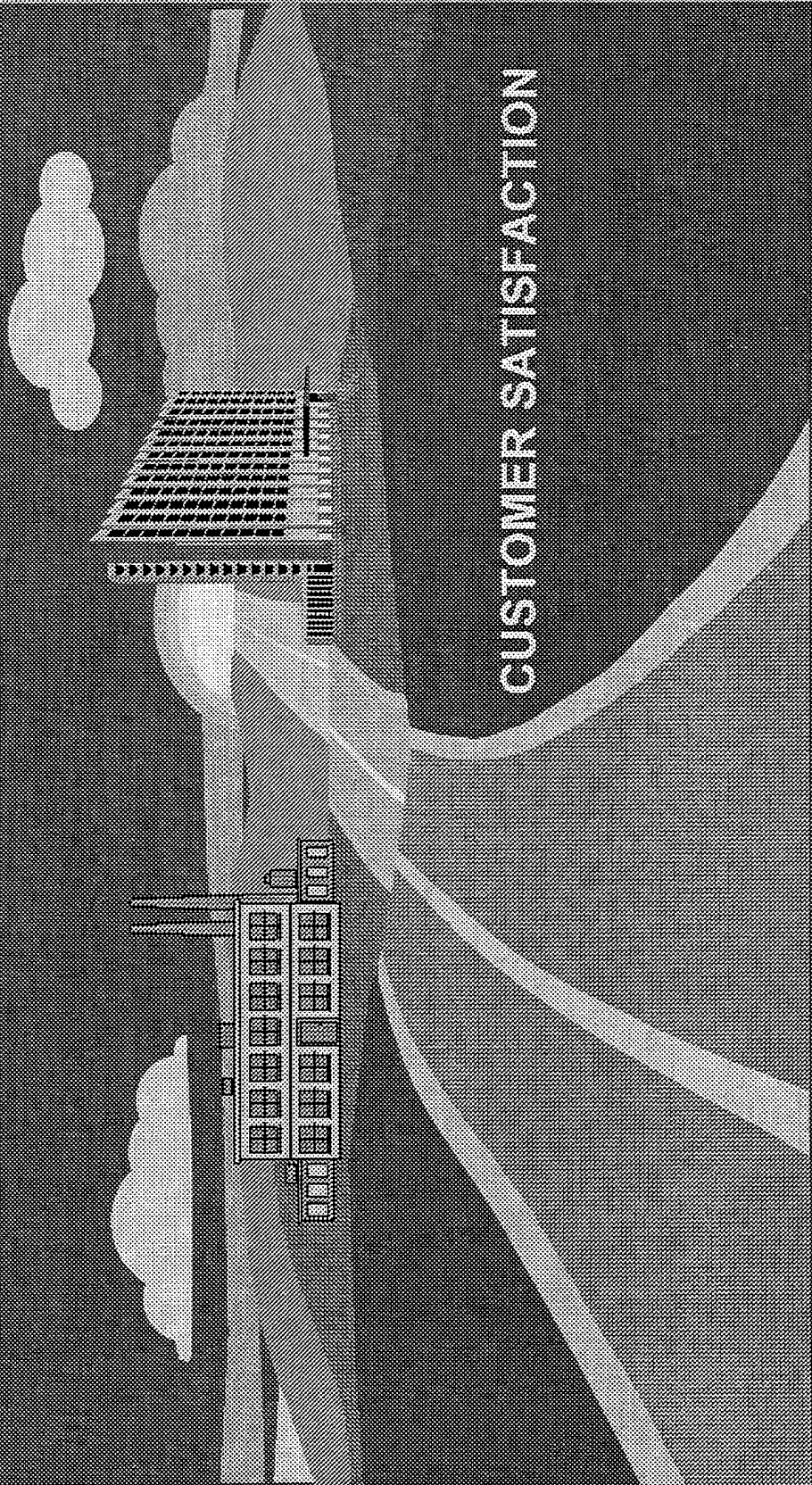
PROPOSED CONTRACT TYPE: REQUIREMENTS

ESTIMATED QUANTITY: ONE SYSTEM PER COUNTRY
ESTIMATED VALUE: \$1-10M

SAMD POC/TEL: FRANK PERRY (908) 532-8647
CONTRACTING OFFICER: M. PAT KOFRON
(908) 532-2364

ROAD TO SUCCESS

INDUSTRY AND GOVERNMENT WORKING TOGETHER
TOWARDS A COMMON GOAL



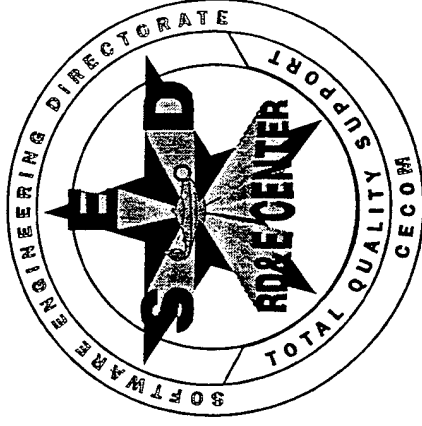
CUSTOMER SATISFACTION



NOTES

CECOM RDEC
SOFTWARE ENGINEERING DIRECTORATE
OMNIBUS CONTRACTS

EUGENE BOYLE
CONTRACT MANAGER
SOFTWARE ENGINEERING DIRECTORATE



UNCLASSIFIED

UNCLASSIFIED
POINT PAPER

AMSEL-RD-SE-R-T-PO

SUBJECT: Software Engineering Directorate (SED) Omnibus Contracts

OBJECTIVE: The SED forms the Army center of excellence for software engineering. This mission provides various opportunities for contractor participation in projects assigned to the SED.

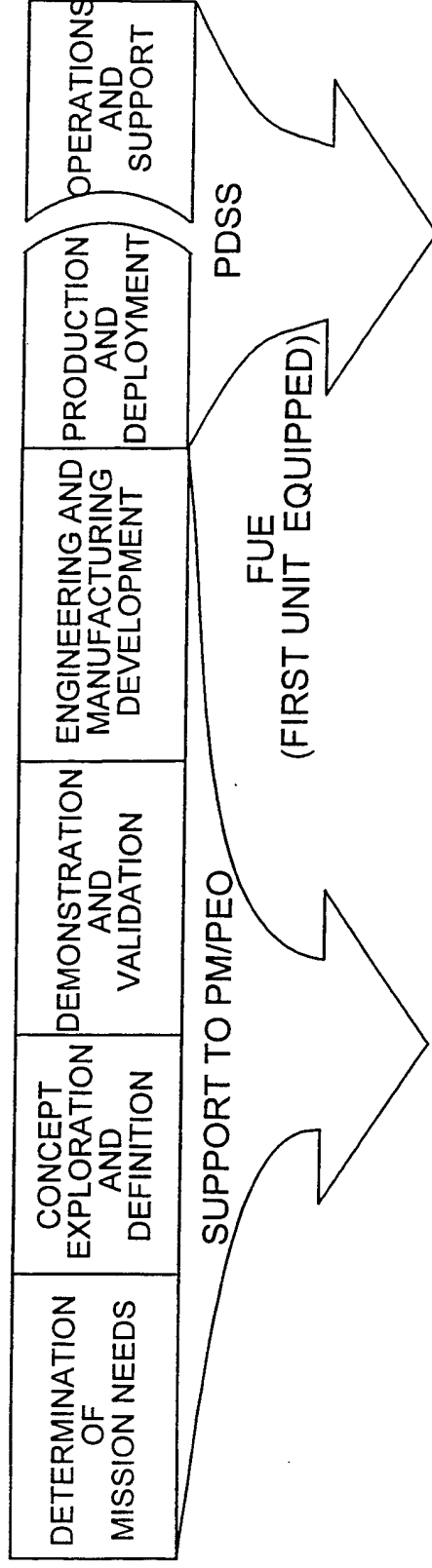
FACTS:

- Life Cycle Software Engineering is committed to worldwide Army readiness, providing weapon system software engineering and support, from the initial system concept through development and production to deployment and support of fielded systems.
- Army Interoperability Network involves development of systems and processes to enable testing of Mission Critical Defense Systems in all phases of the life cycle.
- The SED contractual program represents approximately 1300 man-years of support disbursed throughout the various CONUS locations maintained by SED, and over 230 MCDSs in various stages of development/deployment. The value of the program exceeds \$125 million per year. The SED team comprised of military, civilian, and contractor personnel strives to provide quality support to the soldier in the field through application of state-of-the-art software engineering practices and constant improvement to the software development process.

BRIEFER: Gene Boyle, Contract Manager, CECOM SED, AMSEL-RD-SE-R-T-PO, 908-532-8220.

ACTION OFFICER: Gene Boyle, Chief, SED Contracts Branch,
AMSEL-RD-SE-R-T-PO, 908-532-8220

LIFE CYCLE SOFTWARE ENGINEERING DEFINITION



• ROLES:

- PROVIDE TECHNICAL SUPPORT TO PEOs/PMs
- ENSURE THAT MANAGEMENT AND TECHNICAL DECISIONS ARE COMPATIBLE WITH SUPPORT NEEDS
- ACQUIRE DESIGN KNOWLEDGE

• ROLES:

- MODIFY, REFINE, AND CONTROL SYSTEM SOFTWARE

SUMMARY OF CONTRACTOR OPPORTUNITIES

YEAR		AMOUNT
98-03	ARMY INTEROPERABILITY NETWORK	\$25-\$35M
98-03	SYSTEMS & SOFTWARE ENGINEERING SUPPORT FOR AN-TTC/TYC-39 FAMILY OF SWITCHES	\$35-\$40M
99-04	SYSTEMS & SOFTWARE ENGINEERING FOR FIRE SUPPORT COMMAND CONTROL, FIRE DIRECTION & OTHER SYSTEMS	\$100-\$125M
00-05	MISSION CRITICAL DEFENSE SYSTEM MAINTENANCE	\$10-\$18M

CONTRACT OPPORTUNITY

TITLE:

ARMY INTEROPERABILITY NETWORK (AIN)
DEVELOPMENT, INTEGRATION & TECHNICAL
SUPPORT, FORT MONMOUTH, NJ

OBJECTIVE:

WILL ASSIST THE ARMY TO CONTINUE
DEVELOPMENT OF THE AIN TO PROVIDE A
CONFORMANCE & INTEROPERABILITY TEST
CAPABILITY FOR MCDSS.

TYPE:

COMPETITIVE (UNRESTRICTED) T & M

SCHEDULE:

RFP RELEASE - 4TH QUARTER FY97
AWARD DATE - 2ND QUARTER FY98

APPROX. VALUE:

\$25M-\$35M (5 YEARS)

POC/PHONE:

EUGENE J. BOYLE, 908-532-8220
DAVE CONCILIO, CONTRACTING OFFICER
908-532-2461

CONTRACT OPPORTUNITY

TITLE:

SYSTEMS & SOFTWARE ENGINEERING SUPPORT
FOR AN-TTC/TYC-39 FAMILY OF SWITCHES

OBJECTIVE:

WILL PROVIDE SUPPORT IN THE CORRECTION OF
SW DEFECTS/DEFICIENCIES/ERRORS; & THE
IMPLEMENTATION OF SW REFINEMENTS &
ENHANCEMENTS TO THE OPERATIONAL &
SUPPORT SW OF THESE PROGRAMS.

TYPE:

COMPETITIVE (UNRESTRICTED) T & M

SCHEDULE:

RFP RELEASE - 4TH QUARTER FY97
AWARD DATE -2ND QUARTER FY98

APPROX. VALUE:

\$25M-\$35M (5 YEARS)

POC/PHONE:

EUGENE J. BOYLE, 908-532-8220
DAVE CONCILIO, CONTRACTING OFFICER
908-532-2461

CONTRACT OPPORTUNITY

TITLE:

LIFE CYCLE SYSTEMS & SOFTWARE ENGINEERING
SUPPORT FOR FIRE SUPPORT COMMAND, CON-
TROL, FIRE DIRECTION & OTHER SYSTEMS,
FORT SILL, OK

OBJECTIVE:

PROVIDE SYSTEMS & SOFTWARE ENGINEERING
SERVICES IN SUPPORT OF DEVELOPMENT,
PRODUCTION & DEPLOYMENT OF THE FIRE
SUPPORT COMMUNITY OF SYSTEMS.

TYPE:

COMPETITIVE (UNRESTRICTED) T & M

SCHEDULE:

RFP RELEASE - 3RD QUARTER FY98
AWARD DATE -1ST QUARTER FY99

APPROX. VALUE:

\$100-\$125M (5 YEARS)

POC/PHONE:

EUGENE J. BOYLE, 908-532-8220
DAVE CONCILIO, CONTRACTING OFFICER
908-532-2461

CONTRACT OPPORTUNITY

TITLE:

MISSION CRITICAL DEFENSE SYSTEMS (MCDs)
HARDWARE MAINTENANCE & TECHNICAL
SUPPORT, FORT MONMOUTH, NJ

OBJECTIVE:

PROVIDE TECHNICAL SERVICES FOR HARDWARE
MAINTENANCE AND SUPPORT ON ASSIGNED
MCDs & ASSOCIATED EQUIPMENT AT FORT
MONMOUTH, NJ, FORT SILL, OK, & FORT
HUACHUCA, AZ.

TYPE:

COMPETITIVE (UNRESTRICTED) T & M

SCHEDULE:

RFP RELEASE - 3RD QUARTER FY99
AWARD DATE - 1ST QUARTER FY00

APPROX. VALUE:

\$10M-\$18M (5 YEARS)

POC/PHONE:

EUGENE J. BOYLE, 908-532-8220
DAVE CONCILIO, CONTRACTING OFFICER
908-532-2461



NOTES

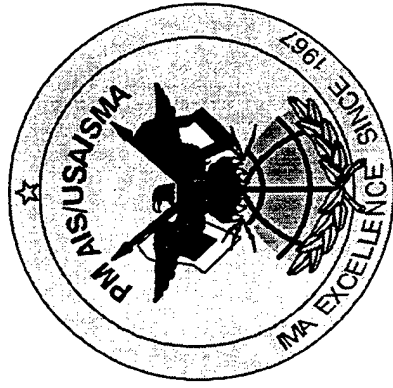
SESSION III

STRATEGIC AND SUSTAINING BASE COMMUNICATIONS

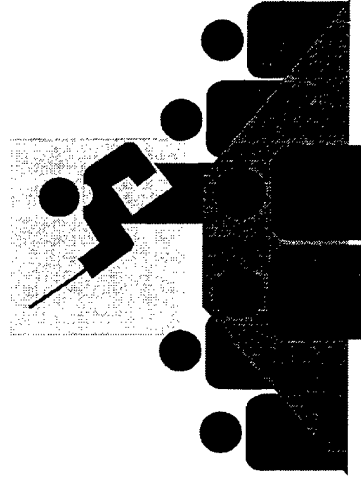
MODERATOR

MR. THOMAS J. MICHELLI

ACTING DIRECTOR
U.S. ARMY INFORMATION SYSTEMS
MANAGEMENT ACTIVITY

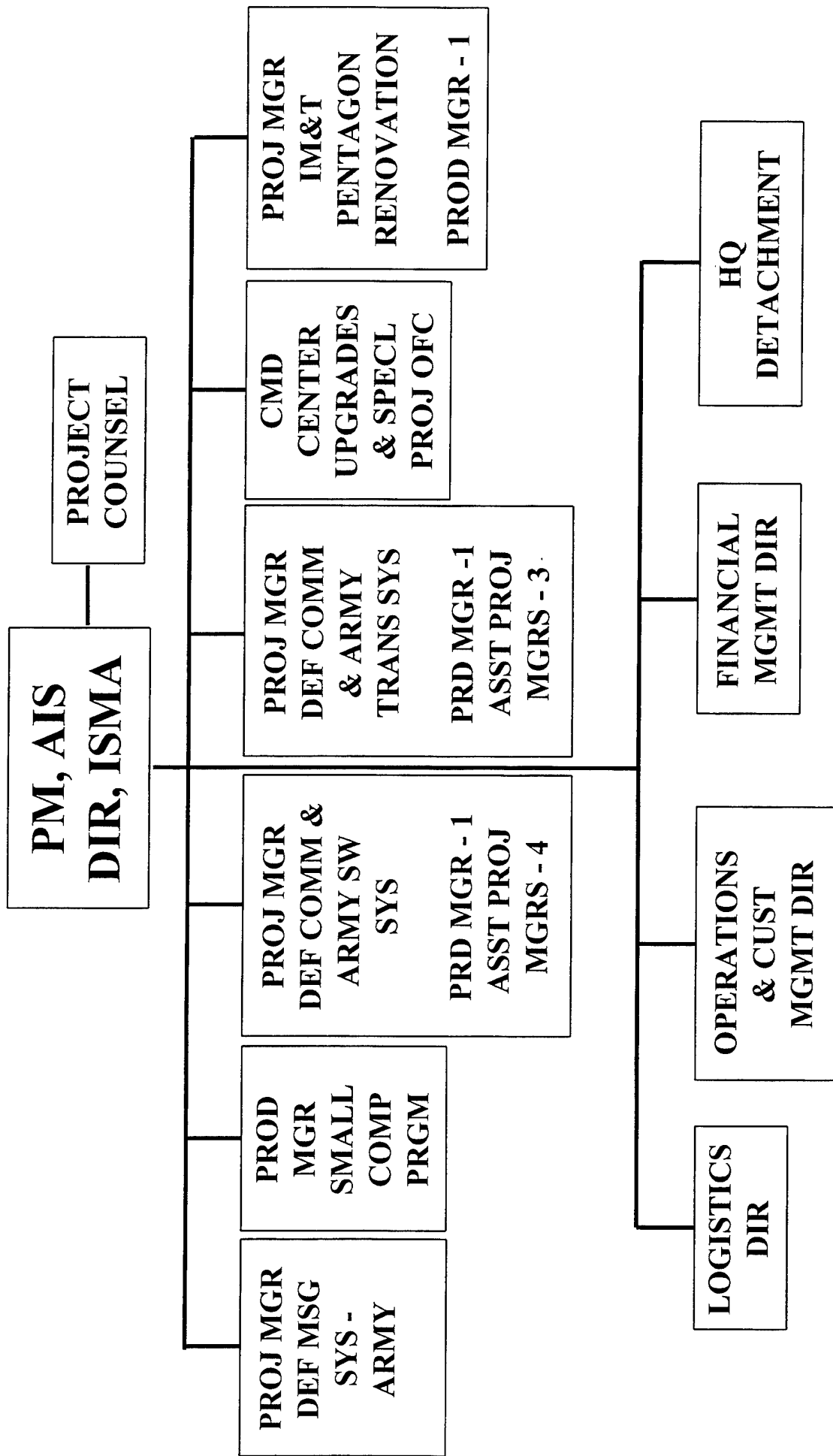


THOMAS J. MICHELLI
DIRECTOR, U.S. ARMY INFORMATION
SYSTEMS MANAGEMENT ACTIVITY

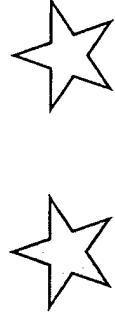
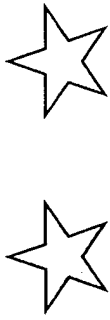


UNCLASSIFIED

PM AIS/ISMA



PM AIS/ISMA



MISSION

Since 1962

**Perform Innovative, Intensive, Central Management
of DoD/Army Strategic, Sustaining Base, C4I, and
other Non-Tactical Systems...**

- **Acquisition & Implementation**
- **Integrated Logistics**
- **Fielding & Testing**

Provide COTs/NDI --

- **Modern Global Defense Infrastructure**
- **Responsive CONUS-Centric Force Projection Platforms**
- **Evolutionary Theater & Specialized C2 Systems**
- **Assured Life-Cycle Sustainability**

U.S. Army

A Continuous Transformation

How Do We Accommodate?

- Information Age
- Varied Threats
- Shrinking Dollars

Power Projection Army

The Army
of 1994

Force XXI

The Army
of 2010

Army Enterprise Strategy - THE VISION

U.S. Army

A Continuous Transformation

Power Projection Army

The
Army
of 1994



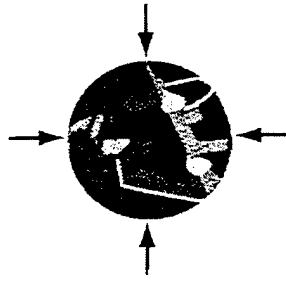
Force XXI

- 21st Century Technology
- Information-based
- Flexible Engagement
- Land Force Dominance
- Improved Lethality and Readiness
- Shared Situational Awareness
- Constrained Resources

The
Army
of 2010

Army Enterprise Strategy - THE VISION

Enterprise Strategy Principles



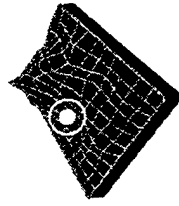
**FOCUS ON THE
WARFIGHTER**



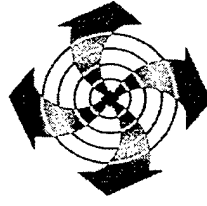
**ENSURE JOINT
INTEROPERABILITY**



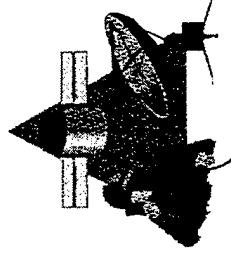
**CAPITALIZE ON
SPACE-BASED ASSETS**



**DIGITIZE THE
BATTLEFIELD**



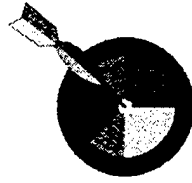
**MODERNIZE POWER
PROJECTION PLATFORMS**



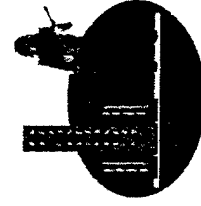
**OPTIMIZE INFO
TECH ENVIRONMENT**



**IMPLEMENT
MULTI-LEVEL
SECURITY**



**ENSURE
SPECTRUM
SUPREMACY**

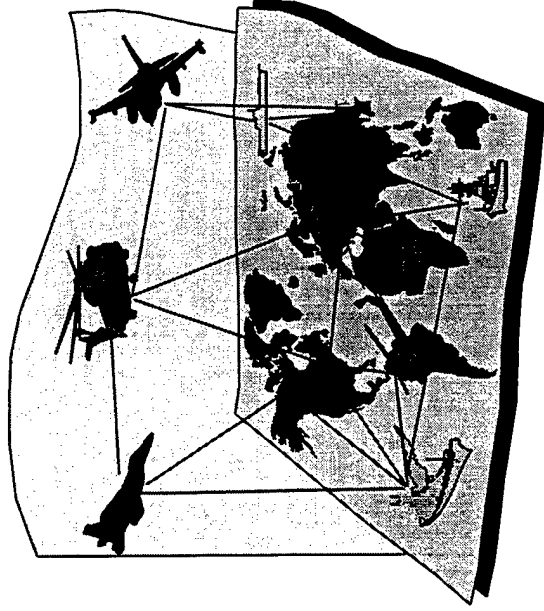


**ACQUIRE INTEGRATED
SYSTEMS USING
COMMERCIAL TECHNOLOGY**



**EXPLOIT
MODELING AND
SIMULATION**

Ensuring Joint Interoperability



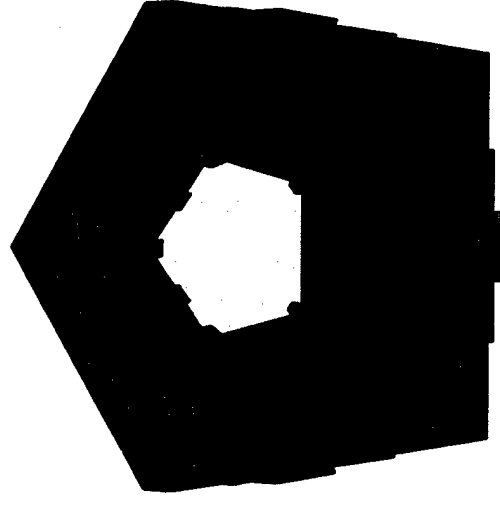
“The overall ability of Warfighter systems to exchange voice, data, and imagery information effectively, in near or real-time, as dictated by the operational situation.”

CINCEUR - Command Ctr
CINCCFC - Coalition C2 Sys
(TACCIMS)

CINCSOUTH - HQ SOUTHCOM

Relocation

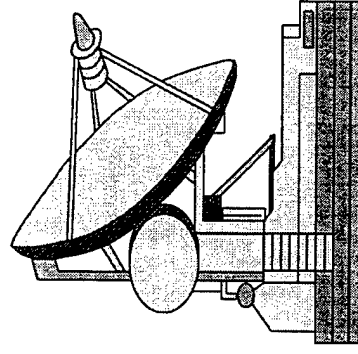
Pentagon Renovation



Modernize Power Projection Platforms

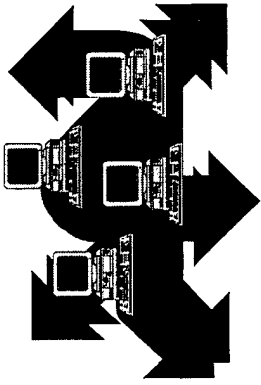


“Provide the Warfighter a modern power projection platform to support peacetime operations, mobilization, force projection, split-base operations, and redeployment.”



Information Systems
Technologies

MACOM Telephone Mod Prog (MTMP)
Outside Cable Rehab (OSCAR)
Common User Installation Transport
Network (CUITN)
Defense Satellite Comm Sys Install
(DSCSI)

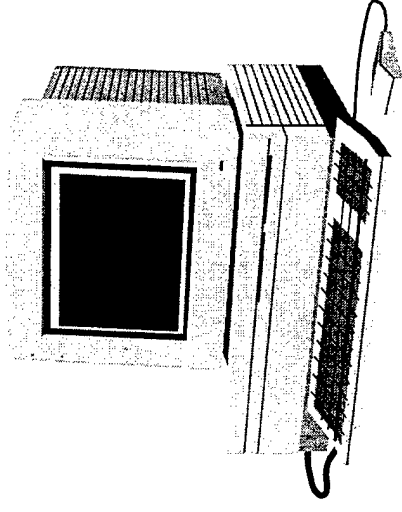


Adaptive
Acquisition

Acquire Integrated Systems Using Commercial Technology

“Acquisition strategies will emphasize technology insertion and evolutionary advances over new starts. ... New requirements will consider opportunities for evolution. Design approaches will emphasize modularity, open architectures, and existing technology to aid future upgrade or replacement.”

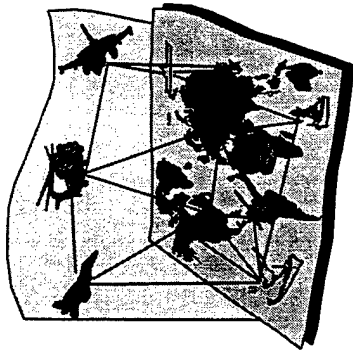
Defense Message System (DMS)
Small Computer Program (SCP)
Base Spt Trunked Radio Sys (BSTRS)



COTS/NDI



Power Projection



Command Centers

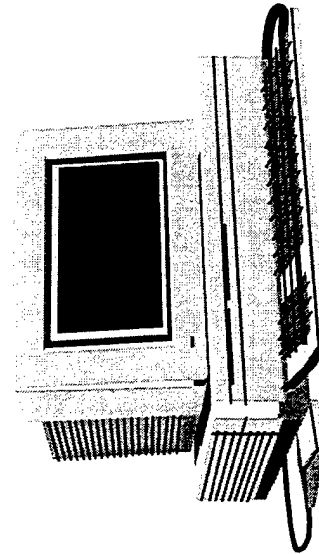


Adaptive Acquisition

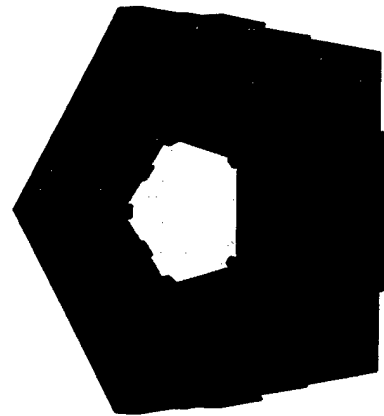


Customer Service

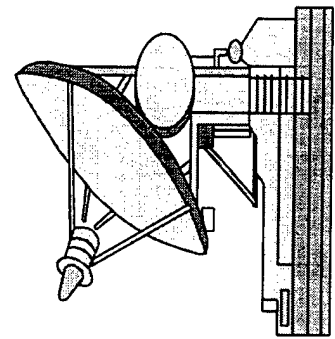
Focusing on the Enterprise Strategy



COTS/NDI



Pentagon Renovation



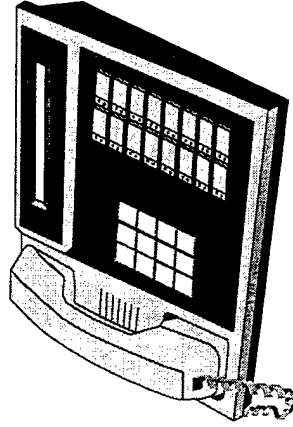
Information Systems Technologies



PM AIS/ISMA BRIEFING TOPICS

USAISMA

TOPICS



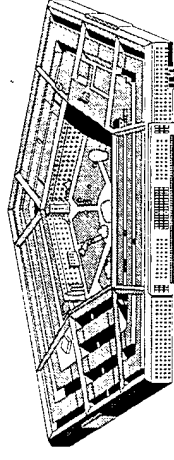
DIGITAL SWITCHED SYSTEMS MODERNIZATION PROGRAM

BRIEFER: CPT RICHARD LOMMOCK
DEFENSE COMMUNICATIONS AND ARMY
SWITCHED SYSTEMS

USAISMA

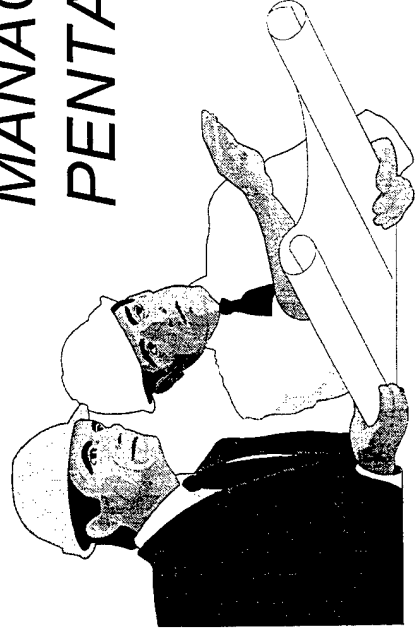
TOPICS

(CONT)



TELECOMMUNICATION INFRASTRUCTURE IN SUPPORT OF PENTAGON RENOVATION

BRIEFER: COL SCIPIO de KANTER
PROJECT MANAGER, INFORMATION
MANAGEMENT & TELECOMMUNICATIONS
PENTAGON RENOVATION



USAISMA

TOPICS

(CONT)

SMALL COMPUTER PROGRAMS:

WORKSTATION - 2

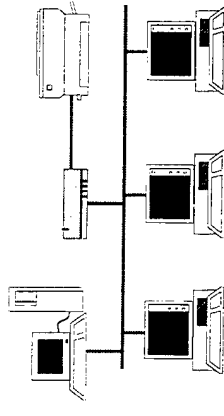
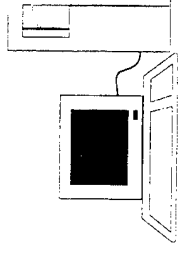
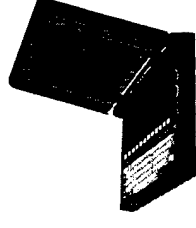
ARMY PERSONAL COMPUTER (PC-3)

ARMY PORTABLE COMPUTER (PORTABLE-3)

ARMY MULTIUSER COMPUTER (SMC-III)

STANDARD SYSTEMS TECHNOLOGY

SUPPORT-1 (SSTS-1)

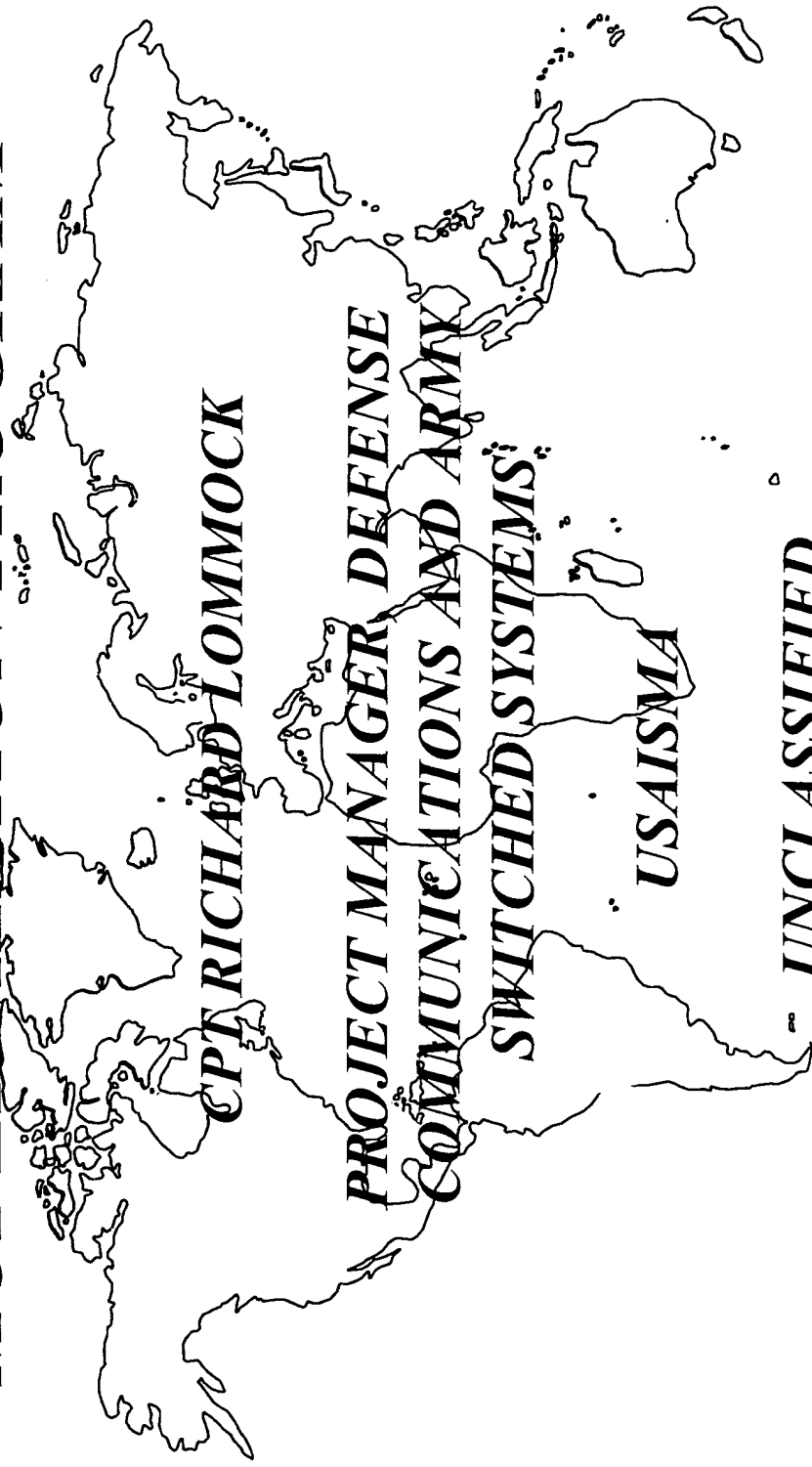


BRIEFER: LTC MARY FULLER
PRODUCT MANAGER,
SMALL COMPUTER PROGRAM



NOTES

**DIGITAL SWITCHED SYSTEMS
MODERNIZATION PROGRAM**



24 July 96

POINT PAPER

SUBJECT Digital Switched Systems Modernization Program (DSSMP)

OBJECTIVE:

To meet Department of the Army, DoD, and other Federal Agency switch replacement and upgrade requirements with a flexible contract vehicle which provides a turn key customer solution from site preparation through equipment installation, cutover, and training.

FACTS:

- * A competitive acquisition is planned which may result in one or more contracts being awarded to support requirements. Basis for award will be best value.

- * Any award resulting from this solicitation will be a Five (5) year, Firm Fixed Price, Indefinite Delivery/Indefinite Quantity type contract.

- * The total value of the Digital Switched Systems Modernization Program is estimated between \$500 and \$750 million dollars over five years.

- * The Government will be acquiring new switches, upgrades & expansions, reutilizing excess switches, and providing switch related applications. State of the art telecommunications capability will be acquired to include SONET, ISDN, ATM, ADSL, and other broadband technologies.

- * Technology refreshment will be utilized to continually make state of the art equipment solutions available as technology evolves over the life of the contracts.

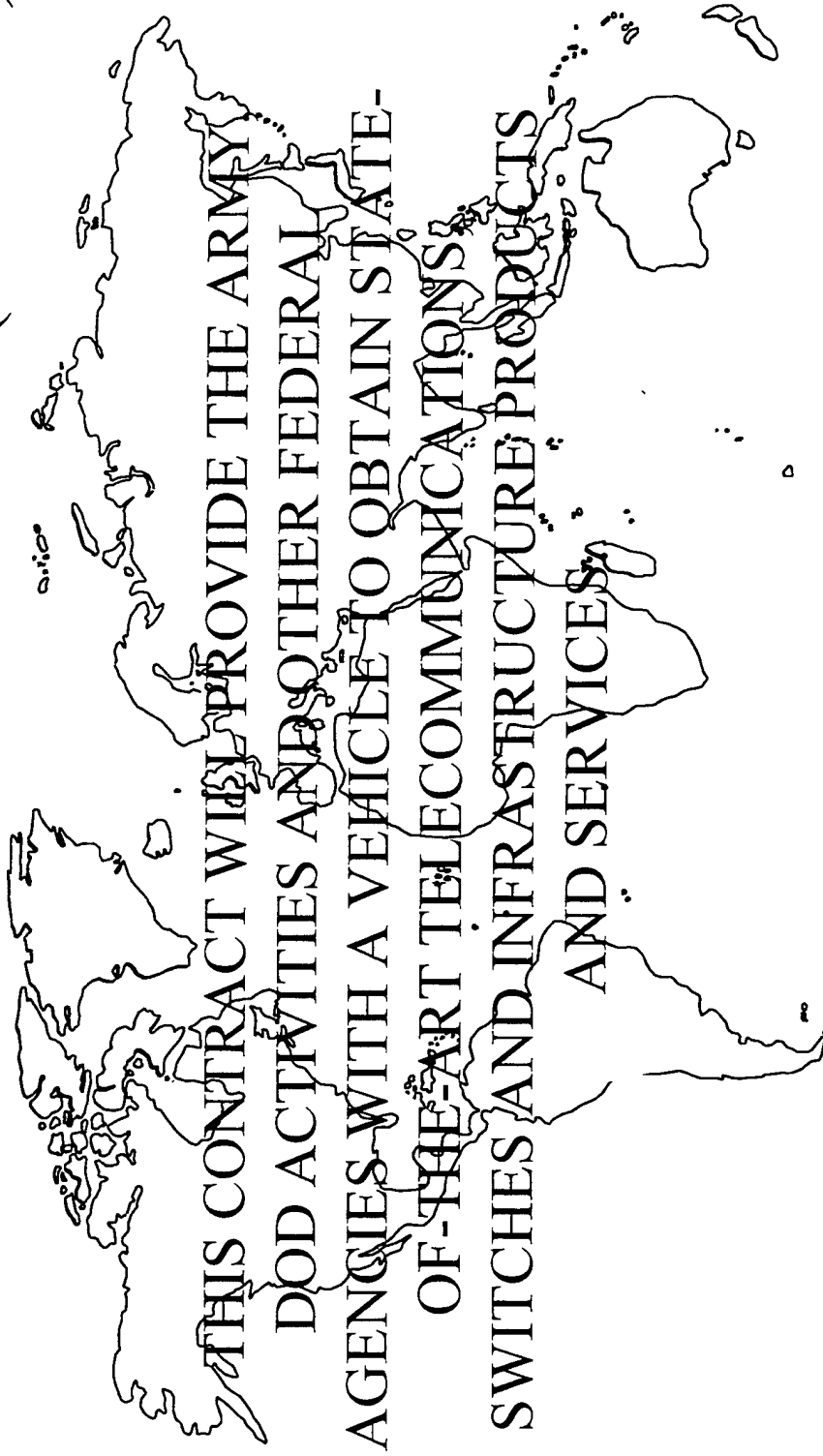
- * The milestones listed below reflect the planned schedule for the DSSMP initiative.

Market Survey
RFP Release
Contract Award

Sep 96
2ND QTR - FY 97
1ST QTR - FY 98

BRIEFER: COL James McKan, Defense Communications and Army Switched Systems
ASQM-SWC (908)-532-7911

DIGITAL SWITCHED SYSTEMS MODERNIZATION PROGRAM (DSSMP)

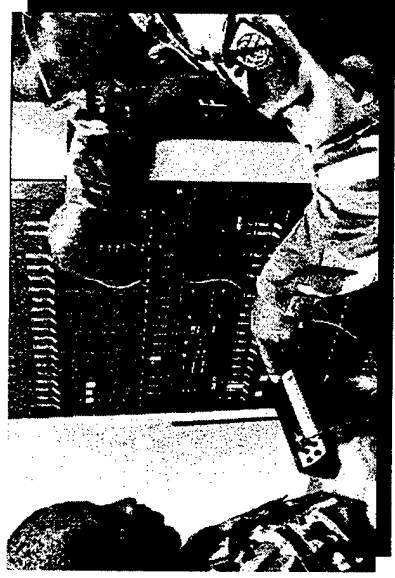


THIS CONTRACT WILL PROVIDE THE ARMY,
DOD ACTIVITIES AND OTHER FEDERAL
AGENCIES WITH A VEHICLE TO OBTAIN STATE-
OF-THE-ART TELECOMMUNICATIONS
SWITCHES AND INFRASTRUCTURE PRODUCTS
AND SERVICES.

DSSMP

ACQUISITION REQUIREMENTS

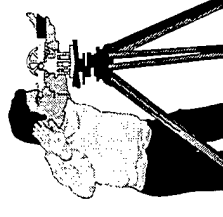
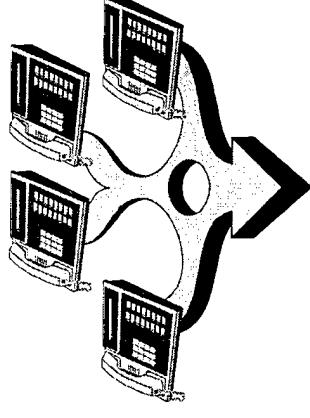
- PROVIDE COMMERCIAL OFF-THE-SHELF DIGITAL SWITCHING SYSTEMS FOR DOD AND OTHER FEDERAL AGENCIES WORLD-WIDE
 - SUPPORT EXISTING MULTI-VENDOR INFRASTRUCTURE
 - NEW SWITCHING SYSTEMS, REPLACEMENT, AND SYSTEM UPGRADES



DSSMP

ACQUISITION REQUIREMENTS (Cont'd)

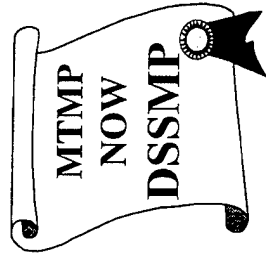
- PROVIDE INTEGRATED TURN-KEY TELECOMMUNICATIONS SYSTEMS SOLUTIONS THAT INCLUDE BUT ARE NOT LIMITED TO:
 - SITE PREPARATION
 - CABLE PLANT/INFRASTRUCTURE
 - LAN/WAN CONNECTIVITY
 - APPLICATIONS/TERMINAL EQUIPMENT
- CAPABILITY TO INTEGRATE EMERGING TECHNOLOGIES AS THEY BECOME COMMERCIALY AVAILABLE

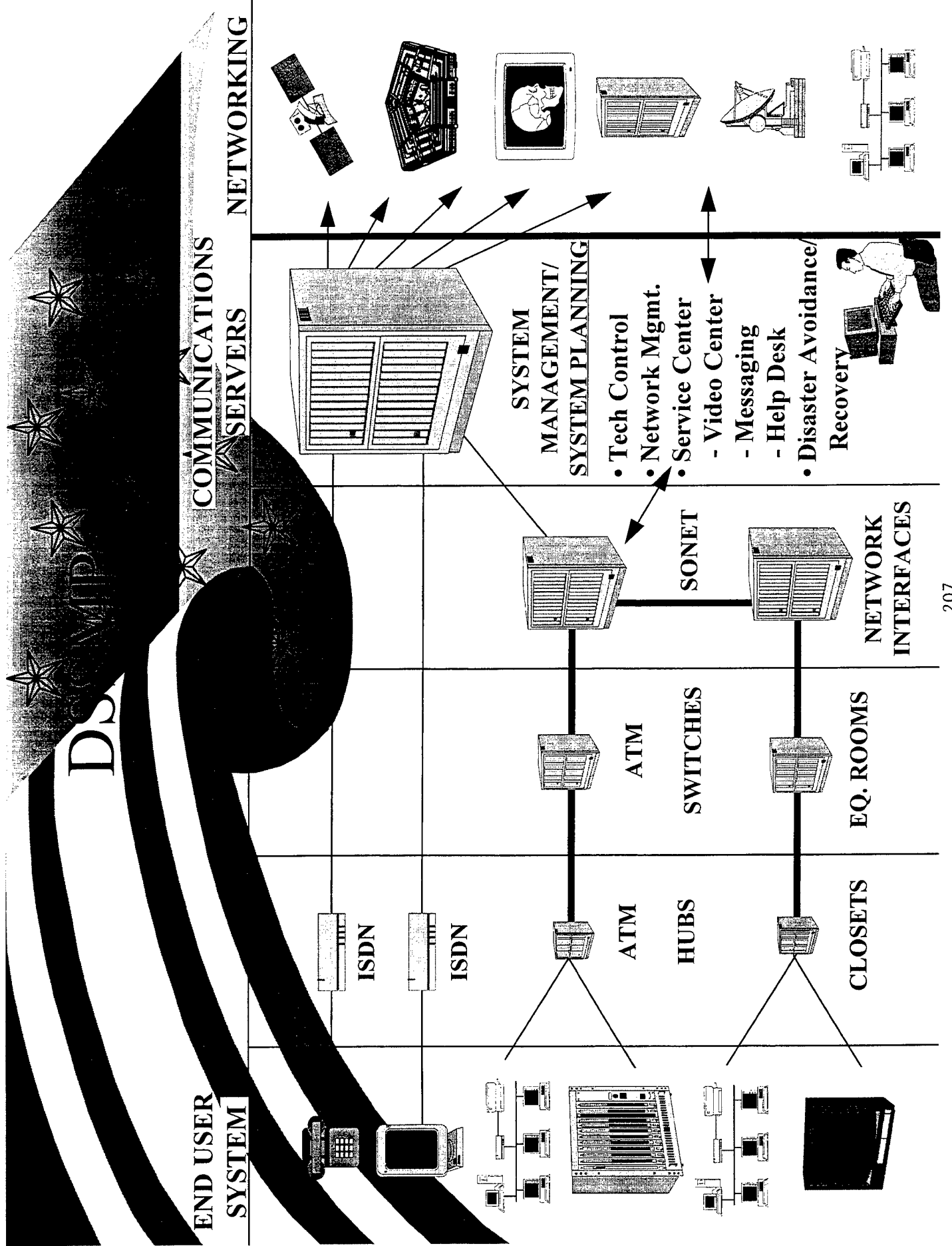


DSSMP

ACQUISITION STATUS

- DSSMP IS A FOLLOW-ON TO THE EXISTING MTMP CONTRACT.
- DSSMP CONTRACT WILL BE OPEN TO ALL DOD AND FEDERAL AGENCIES.
- WORK TO BE PERFORMED WORLDWIDE.
- ARMY SITES WILL BE UPGRADED IN ACCORDANCE WITH THE DEPARTMENT OF THE ARMY INSTALLATION SEQUENCE LIST.





CONTRACT OPPORTUNITY

TITLE: DIGITAL SWITCHED SYSTEMS MODERNIZATION
PROGRAM (DSSMP)

OBJECTIVE: REPLACE OR UPGRADE TELECOMMUNICATIONS
SWITCHING SYSTEMS

PROPOSED CONTRACT TYPE: FIRM FIXED PRICE INDEFINITE
DELIVERY/INDEFINITE QUANTITY
(ID/IQ)

KEY MILESTONES: MARKET SURVEY - SEP 96
RFP RELEASE DATE - 2ND QTR FY97
CONTRACT AWARD - 1ST QTR FY98

ESTIMATED VALUE: \$500M- \$750M

TECH POC/TEL #: MAJ STEPHANIE VANDEVEIRE/(908) 532-7911
CONTRACT POC/TEL#: MS. ROBIN BALDWIN/(908) 532-2362



NOTES



Pentagon Renovation Information Management and Telecommunications Project

COL Scipio de Kanter
Project Manager
PM, IM&T

UNCLASSIFIED

POINT PAPER

SUBJECT: Pentagon Renovation Information Management & Telecommunications (IM&T)

OBJECTIVE: The Backbone infrastructure contract for Pentagon Renovation is the acquisition of design, installation, and testing services, and Commercial-off-the-shelf network and telecommunications components to support DoD telecommunications requirements in the renovated pentagon.

FACTS:

Information Mission Area products will support telecommunications requirements for Services and Agencies in the Pentagon.

The contract will provide engineering services and integrate designed solutions of Commercial - off-the-shelf equipment in the renovated Pentagon. The contract will also provide for the insertion of new technology in the telecommunications infrastructure.

Milestones listed below reflect the planned schedule for release of the Backbone Infrastructure Contract. All schedules are planned to provide service to DoD organizations in the Pentagon.

DRAFT RFP Release	Sep 96
Final RFP	TBD
Contract Award	TBD

BRIEFER: COL Scipio de Kanter, Project Manager, Information Management, and Telecommunications for Pentagon Renovation, (703) 607-9094

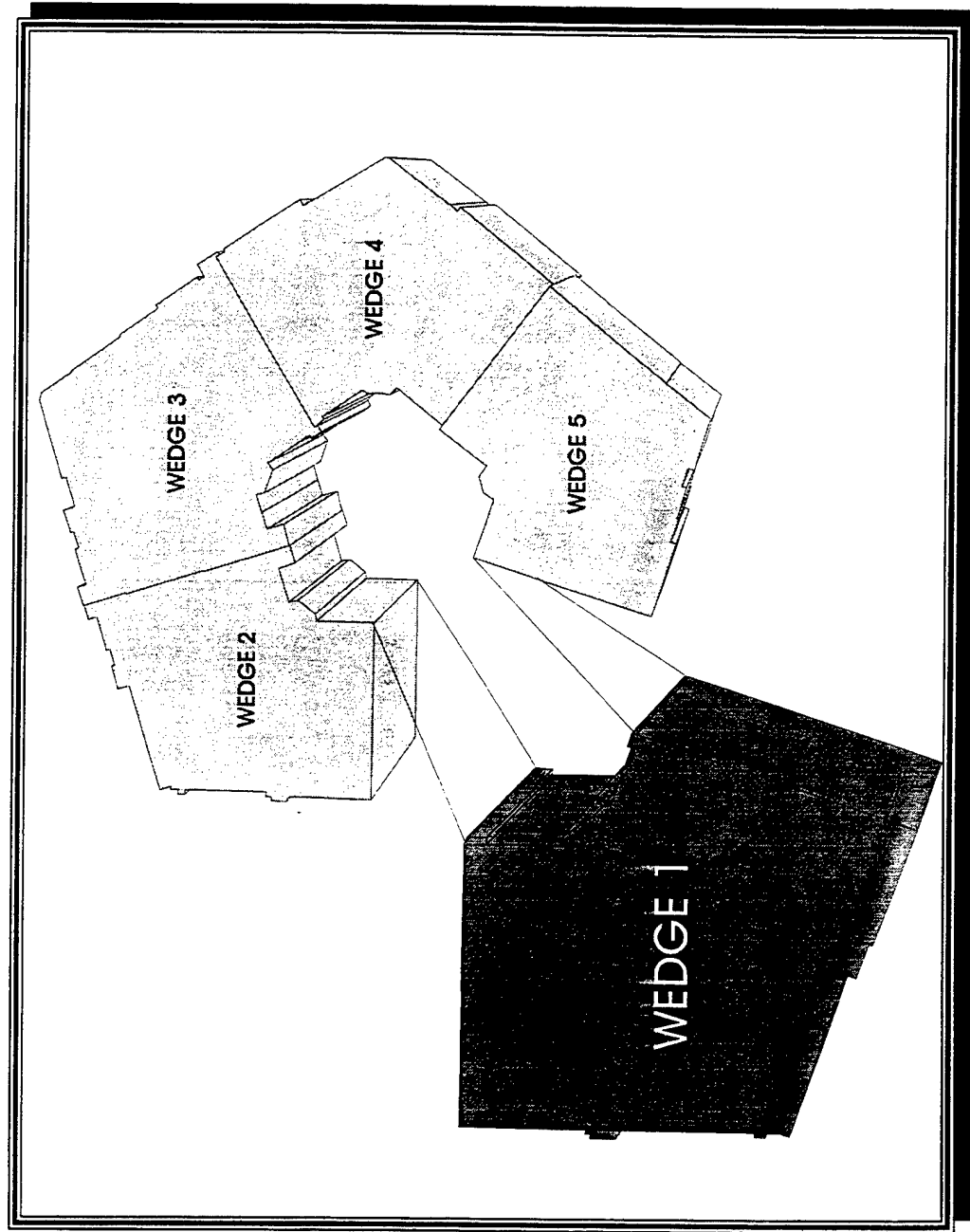


Project Manager, Information Management & Telecommunications Mission

The Washington Headquarters Services, assisted by the U.S. Army Corps of Engineers and the U.S. Army Information Systems Command will execute a comprehensive renovation of the Pentagon to transform the facility, including all Information Management and Telecommunications services, into a modern office environment.



Project Manager, Information Management & Telecommunications Wedges





Project Manager, Information Management & Telecommunications Background

↔ IM&T Deficiencies

- **Some Communications Systems Outdated and Overworked**
- **Wiring System Inadequate**
- **Data Systems User Oriented and Independent of Building Wiring System**
- **Wire Closets, Ceiling Access, Riser Shafts Inadequate**
- **Communications Pathways Extremely Congested**



Project Manager, Information Management & Telecommunications Background

➡ IM&T Deficiencies (Cont'd)

- Cable Records Almost Non-Existent
- Cable Plant Access Limited Due to Asbestos Problems
- Riser System Is Obsolete and Over Utilized
- Protected Wire Distribution Systems Congested
- Grounding Systems of Poor Quality



Project Manager, Information Management & Telecommunications Objectives

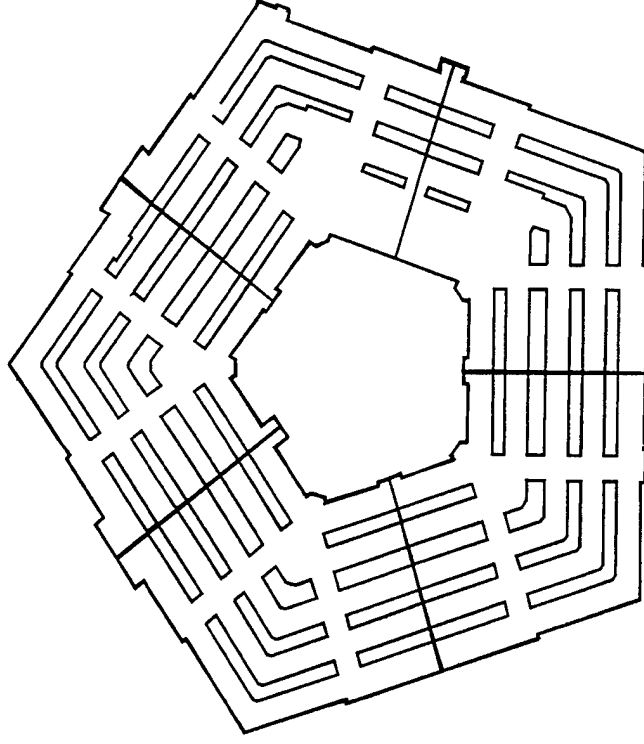
- ➡ **Comprehensive Engineer, Furnish, Install,
and Test Contract**
- ➡ **Single System Integrator**
- ➡ **Base Contract for Wedge I**
 - **Wedges 2-5 As Options**
- ➡ **Vendor to Provide a Comprehensive Voice,
Data, and Video Communications System**



Project Manager, Information Management & Telecommunications Program Status

➡ Above Ground

➤ Wedge 1	IM&T Preliminary Design Begins Sep 97
➤ Wedge 2	TBD
➤ Wedge 3	TBD
➤ Wedge 4	TBD
➤ Wedge 5	TBD





Project Manager, Information Management & Telecommunications Contract Opportunity

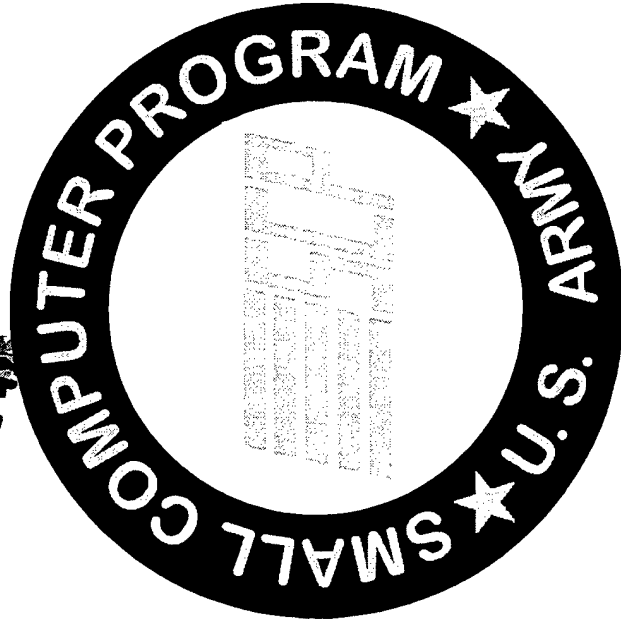
- ➔ **Backbone Telecommunications**
- ➔ **Objective:** Design, Engineer, Furnish, Install, Test, and Cutover a Scaleable State of the Art Telecommunications Infrastructure for the Renovated Pentagon.
- ➔ **Proposed Contract Type:** Requirements Contract With Loaded Labor Rates and Incentives
- ➔ **Key Milestones:** RFP Release - Sep 96
Final RFP Release - TBD
- ➔ **Estimated Value:** \$ 250M - \$ 350M (All Five Wedges)
- ➔ **POC Name/Number:** Ms. Mary Lohman, DSS-W (703) 614-2106
- ➔ **Technical POC:** COL Scipio de Kanter, PM, IM&T (703) 607-9094



NOTES



U.S. ARMY
SMALL COMPUTER PROGRAM



PRESENTED BY

LTC MARY FULLER
PRODUCT MANAGER

UNCLASSIFIED

15 July 96

POINT PAPER

SUBJECT: ARMY WORKSTATION-2 (WS-2)

OBJECTIVE: Workstation-2 is the acquisition of commercial-Off-The-Shelf (COTS) workstations to satisfy DOD requirements for engineering, software development, data analysis, technical writing and graphical design capabilities.

FACTS:

- * Provide all Commerical-Off-The-Shelf (COTS) products
- * Comply with the Technical architecture framework for information management (TAFIM)
- * Year-2000 compliant
- * Software - OS (Unix/Posix), OA, Programming Languages
- * Meet the DOD requirement for workstation computing power
- * Milestones listed below reflect the planned schedule for WS-2. All schedules are planned to provided IDIQ contract coverage for Army and DoD users worldwide.

**RFP Release	4TH QTR - FY 98
**Contract Award	3RD QTR - FY 99

This will be a Firm-Fixed-Price, Indefinite Delivery/Indefinite Quantity procurement. It will be a Best Value evaluation with dual award. The contract is planned to run three years for ordering. Electronic Order Processing is projected.

BRIEFER: LTC Mary Fuller, Product Manager, Small Computer Program, ASQM-SCP, (908) 532-7917

Product Manager:
LTC Mary Fuller
Small Computer Program
(908) 532-7917

15 July 96

POINT PAPER

SUBJECT: Army Personal Computer Procurement -3 (PC-3)

OBJECTIVE: PC-3 is the acquisition of Commercial-Off-The-Shelf (COTS) general purpose, office automation-personal computers, software and peripherals in support of the Army's power projection and strategic missions.

FACTS:

- * Information Mission Area (IMA) certified products that will support current and next generation of software under POSIX/DOS OSs as well as to replace the aging fielded PC base within the Army
- * Follow-on to the Army PC-1 and PC-2 contracts
- * All CPUs, monitors and printers will be Energy Star and Year-2000 compliant
- * Complies with all DoD technical PC directives/standards, including the Technical Architecture Framework for Information Management (TAFIM)
- * Milestones listed below reflect the planned schedule for PC-3. All schedules are planned to provide IDIQ contract coverage for Army users worldwide within the guidelines of the DoD Personal Computer Policy Implementation Plan FY 1994-1999.

**RFP Release	4TH QTR - FY 98
**Contract Award	1ST QTR - FY 99

This will be a Firm-Fixed-Price, Indefinite Delivery/Indefinite Quantity procurement. It will be a Best Value evaluation with dual award. The contract is planned to run two years for Hardware/Software ordering. Electronic Order Processing is projected.

BRIEFER: LTC Mary Fuller, Product Manager, Small Computer Program, ASQM-SCP, (908) 532-7917

Product Manager:
LTC Mary Fuller
Small Computer Program
(908) 532-7917

15 July 96

POINT PAPER

SUBJECT: Army Portable Computer Procurement - 3 (Portable -3)

OBJECTIVE: Portable-3 is the acquisition of Commercial-Off-The-Shelf (COTS) general purpose notebook and handheld computers and peripherals in support of the Army's portable communication and computing missions.

FACTS:

- * Information Mission Area (IMA) certified products that will support the Army's portable requirements worldwide

- * Follow-on to the Army Portable 1 and Portable-2 contracts

- * All CPUs and printers will be Energy Star and Year-2000 complaint

- * Complies with all DOD Technical Portable directions/standards, including the Technical Architecture Framework for Information Management

- * Milestones listed below reflect the planned schedule for PC-3. All schedules are planned to provide IDIQ contract coverage for Army users worldwide within the guidelines of the DoD Personal Computer Policy Implementation Plan. FY 1994-1999.

**RFP Release	4TH QTR - FY 98
**Contract Award	1ST QTR - FY 99

This will be a Firm-Fixed-Price, Indefinite Delivery/Indefinite Quantity procurement. It will be a Best Value evaluation with dual award. Each winning vendor will supply the full CLIN requirement over two years. Electronic Order Processing is projected.

BRIEFER: LTC Mary Fuller, Product Manager, Small Computer Program, ASQM-SCP, (908) 532-7917

Product Manager:
LTC Mary Fuller
Small Computer Program
(908) 532-7917

15 July 96

POINT PAPER

SUBJECT: Army Small Multiuser Computer Procurement - III (SMC-III)

OBJECTIVE: SMC-III is the acquisition of Commercial-Off-The-Shelf (COTS) multiuser, server, network server computer equipment, software, networking components, and technical support services to satisfy Army, Navy, Air Force, and DoD agencies office automation networking requirements.

FACTS:

- * Information Mission Area (IMA) certified products that will support Army/DoD network server/software requirements. This acquisition will follow the SMC-II contract which is scheduled to expire at the end of FY 98.

- * All monitors and printers will be Energy Star and Year-2000 compliant.

- * Complies with all DOD technical directives/standards, including the Technical Architecture Framework for Information Management.

- * Milestones listed below reflect the planned schedule for SMC-III. All schedules are planned to provide IDIQ contract coverage for Army and DoD users worldwide.

**RFP Release	2ND QTR - FY 98
**Contract Award	4TH QTR - FY 98

This will be a Firm-Fixed-Price, Indefinite Delivery/Indefinite Quantity procurement. It will be a Best Value evaluation with single award. The contract is planned to run three years for ordering. Electronic Order Processing is projected.

BRIEFER: LTC Mary Fuller, Product Manager, Small Computer Program, ASQM-SCP, (908) 532-7917

Product Manager:
LTC Mary Fuller
Small Computer Program
(908) 532-7917

15 July 96

POINT PAPER

SUBJECT: Standard Systems Technology Support -1 (SSTS-1)

OBJECTIVE: SSTS-1 is the acquisition of Commercial-Off-The-Shelf (COTS) peripherals, CPU upgrades, software upgrades, and new technology to support the Army's fielded computer base.

FACTS:

- * Support the technology of PC-1, Portable-1, SMC-1, other standard systems, joint service contracts (Desktop IV [DTIV], and Standard Multiuser Small Computer Requirements Contract [SMSCRC])

- * Extend useful life of PCs, servers 5-7 years

- * Maximize Government (Taxpayer) investment in current ADP

- * Milestones listed below reflect the planned schedule for SSTS-1. All schedules are planned to provide IDIQ contract coverage for Army and DoD users worldwide.

**RFP Release	1ST QTR - FY 97
**Contract Award	3RD QTR - FY 97

This will be a Firm-Fixed-Price, Indefinite Delivery/Indefinite Quantity procurement. It will be a Best Value evaluation with single award. The contract is planned to run two years for ordering.

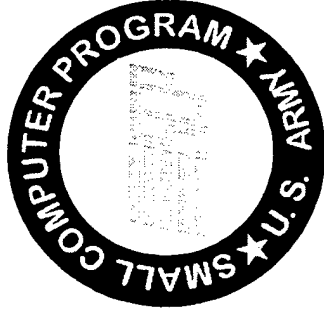
BRIEFER: LTC Mary Fuller, Product Manager, Small Computer Program, ASQM-SCP, (908) 532-7917

Product Manager:
LTC Mary Fuller
Small Computer Program
(908) 532-7917

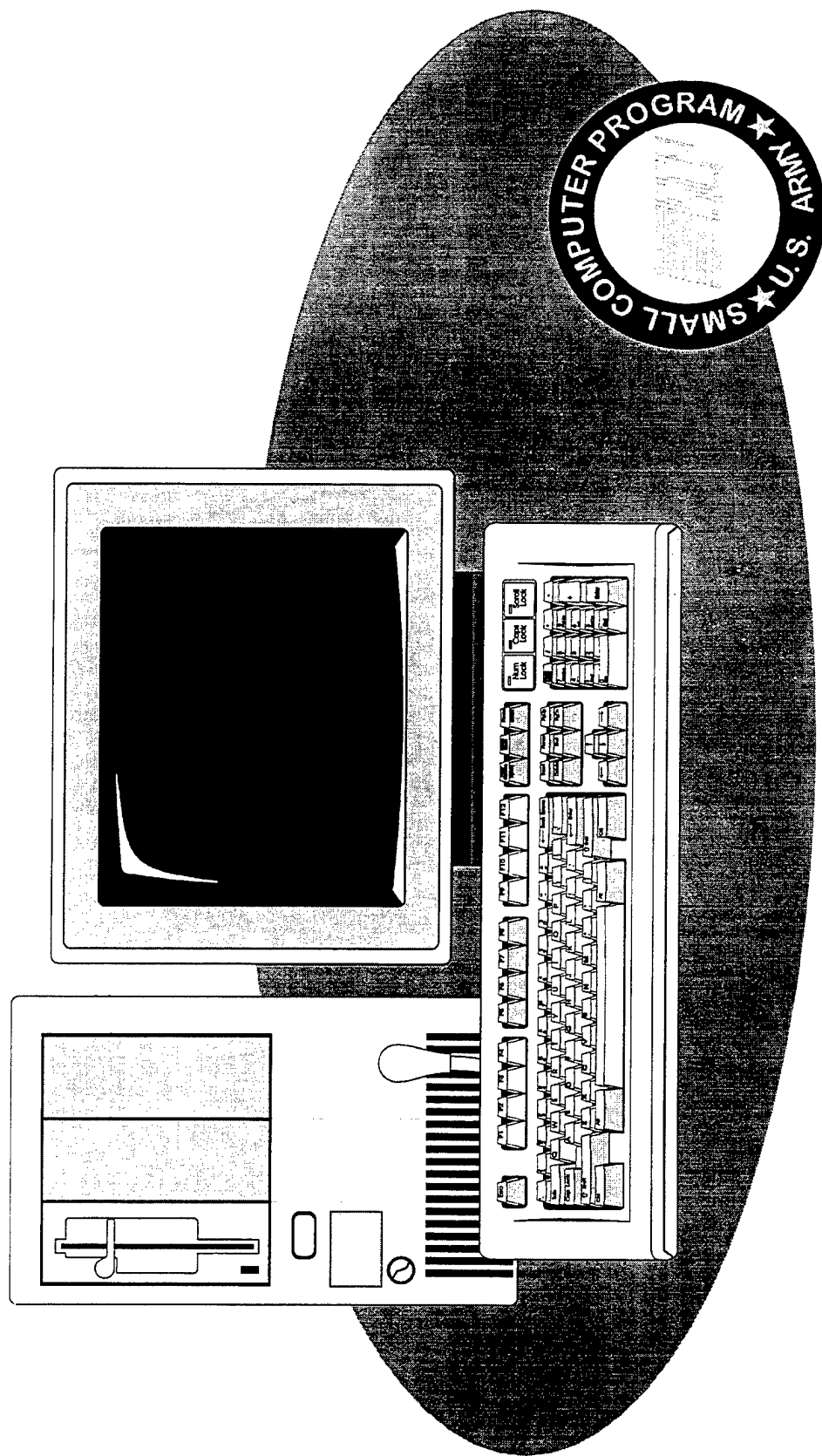
BRIEFING TOPICS

- ARMY WORKSTATION - 2 (WS-2)
- ARMY PERSONAL COMPUTER - 3 (PC-3)
- ARMY PORTABLE COMPUTER - 3 (PORT-3)
- SMALL MULTIUSER COMPUTER - III (SMC-III)
- STANDARD SYSTEM TECHNOLOGY SUPPORT - I

(SSTS-I)



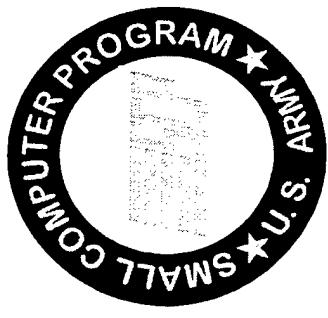
ARMY WORKSTATION-2 (WS-2)



WS-2

DEFINITION

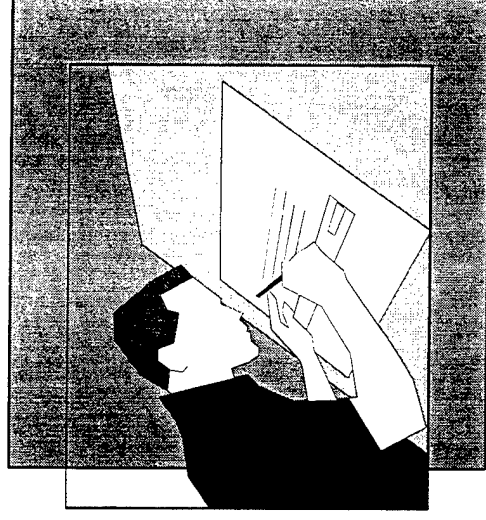
**ACQUISITION OF COMMERCIAL-OFF-THE-SHELF
(COTS) WORKSTATIONS TO SATISFY DOD
REQUIREMENTS .**



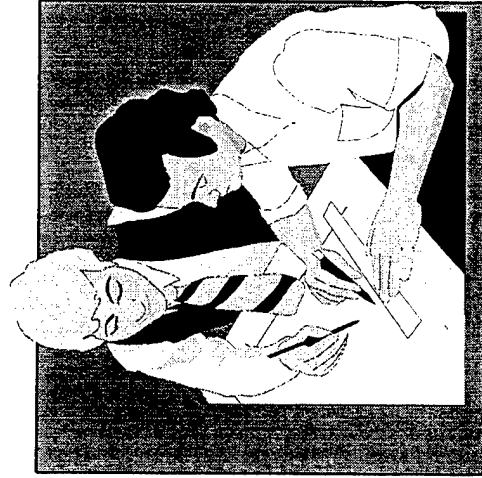
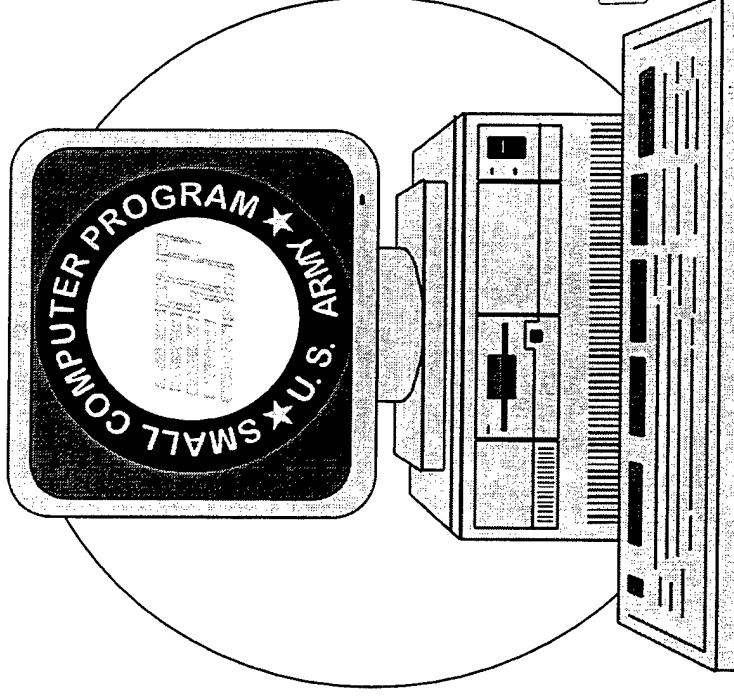


DATA ANALYSIS

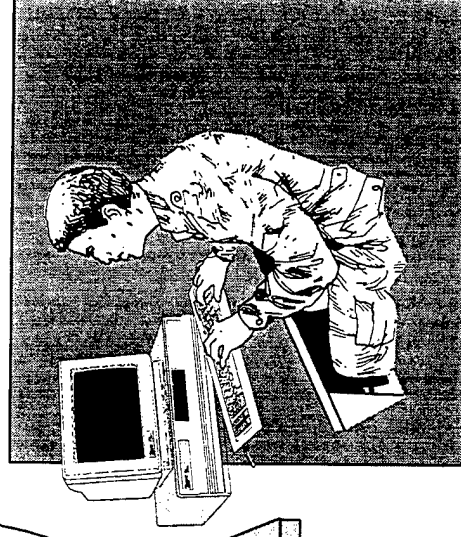
WS-2 SCOPE



GRAPHICAL DESIGN



TECHNICAL WRITING

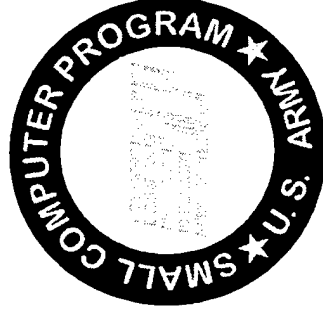


SOFTWARE DEVELOPMENT

WS-2 OBJECTIVES

- **PROVIDE ALL COMMERCIAL-OFF-THE-SHELF
(COTS) PRODUCTS**
- **COMPLY WITH THE TECHNICAL ARCHITECTURE
FRAMEWORK FOR INFORMATION MANAGEMENT
(TAFIM)**
- **MEET THE DOD REQUIREMENT FOR WORKSTATION
COMPUTING POWER**

DUAL AWARD (TWO CONTRACTORS)



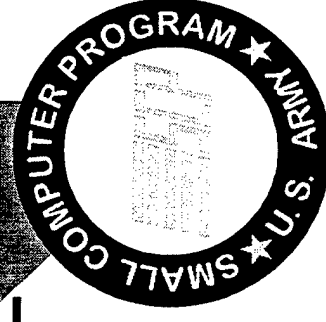
WS-2 OBJECTIVES

PLEASE PLACE
ORDERS HERE



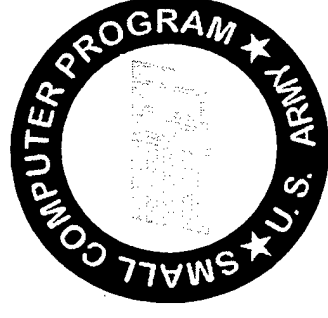
- 3 YEAR ORDERING WINDOW
- 36 MONTH MINIMUM WARRANTY
- ELECTRONIC ORDER PROCESSING PROJECTED
- FIRM-FIXED-PRICE (FFP) INDEFINITE DELIVERY/
INDEFINITE QUANTITY (ID/IQ) BEST VALUE
AWARDS

1995			
	1	2	3
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	



WS-2 REQUIREMENTS

- **STATE-OF-THE-ART PLATFORMS - COTS -
BUNDLED CONFIGURATIONS**
 - **ENTRY LEVEL, MID-RANGE, & HIGH END
WORKSTATIONS**
- **FULL COMPLIMENT OF HW PERIPHERALS**
- **SOFTWARE - OS (UNIX/POSIX), OA, PROGRAMMING
LANGUAGES**
- **YEAR 2000 COMPLIANT**



CONTRACT OPPORTUNITY

TITLE: ARMY WORKSTATION (WS-2)

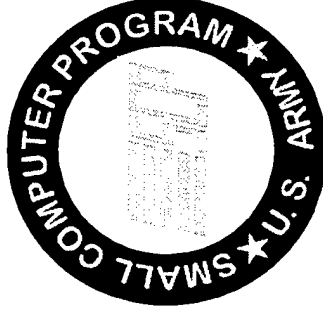
OBJECTIVE: COTS, EQUIPMENT TO SUPPORT
DOD REQUIREMENTS FOR CPU-
INTENSIVE, OFFICE WORKSTATION
APPLICATIONS

**PROPOSED
CONTRACT
TYPE:** FFP ID/IQ (BEST VALUE AWARD)
COTS HW/SW

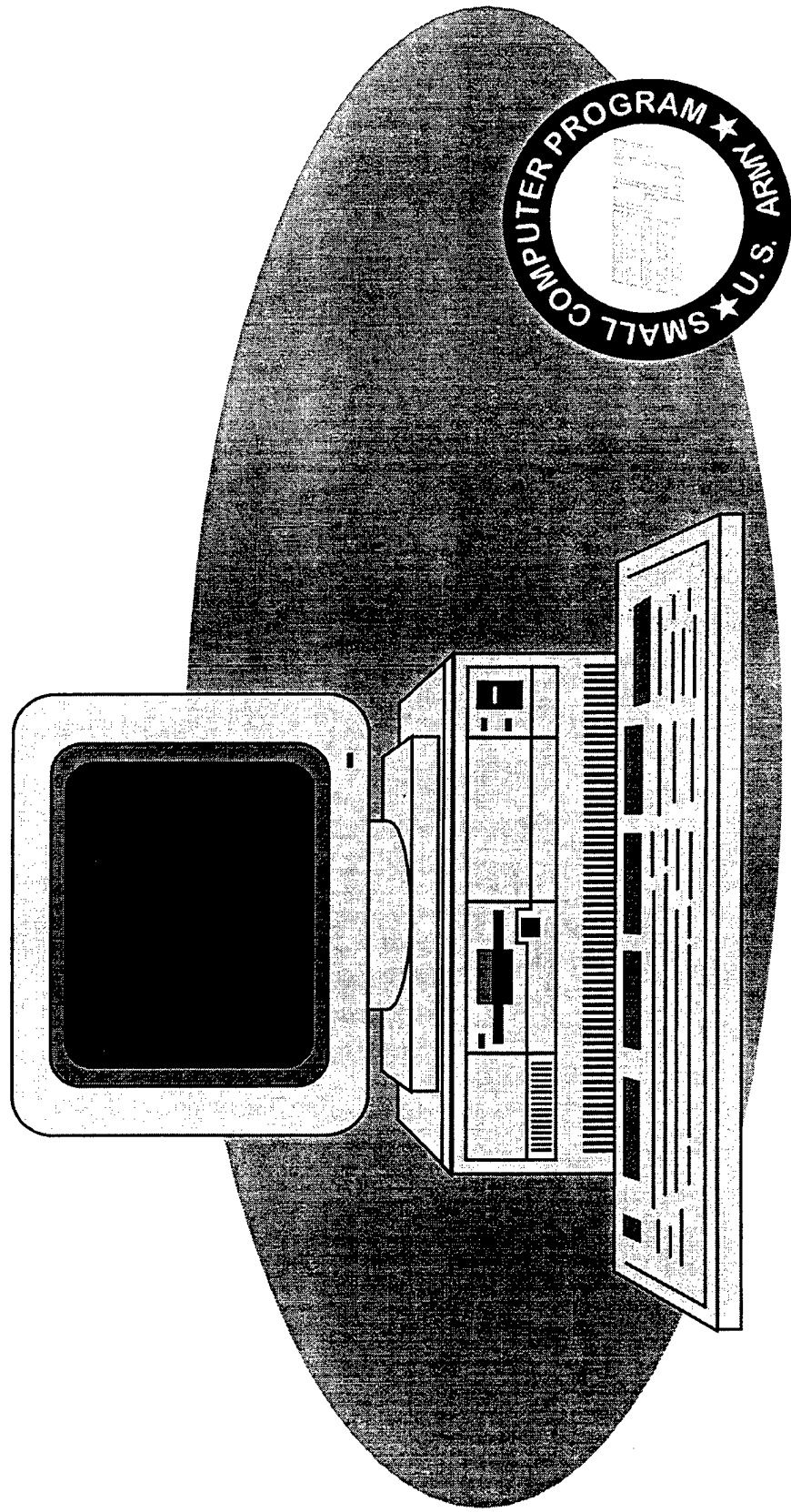
KEY MILESTONES: RFP RELEASE 4TH QTR FY 98
AWARD 3RD QTR FY 99

ESTIMATED VALUE: \$350 - \$550M

POCs: THOMAS J. LEAHY, PM-SCP (908) 532-7994
HELEN GARAMONE, ISSAA (703) 325-9762

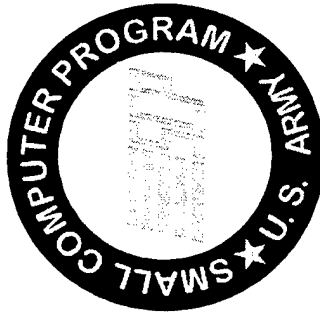


ARMY PERSONAL COMPUTER-3 (PC-3)

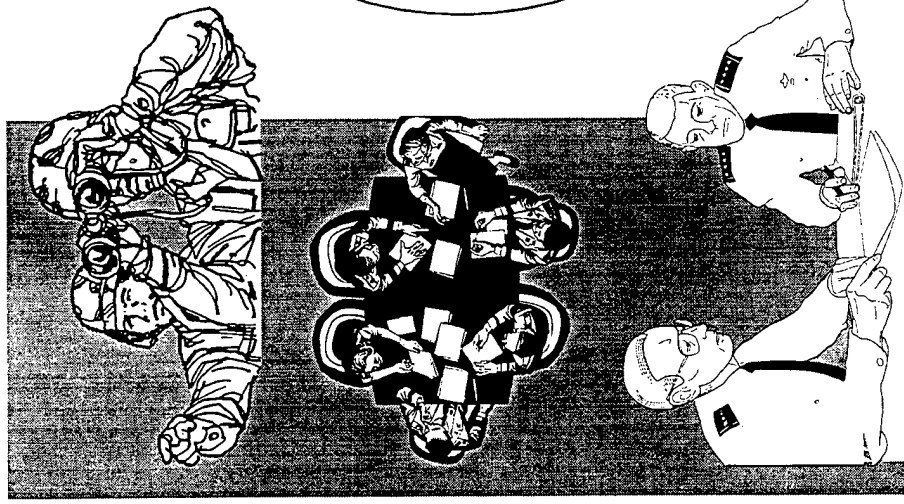


PC-3 DEFINITION

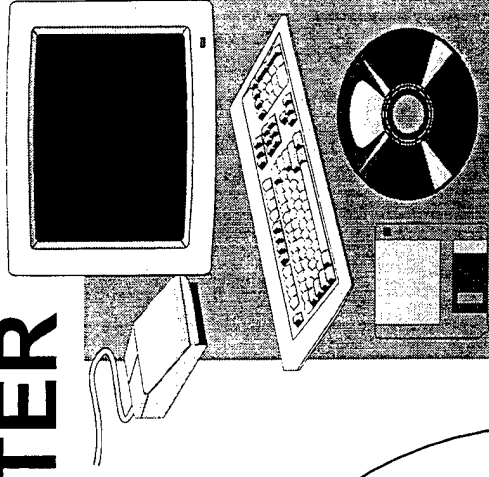
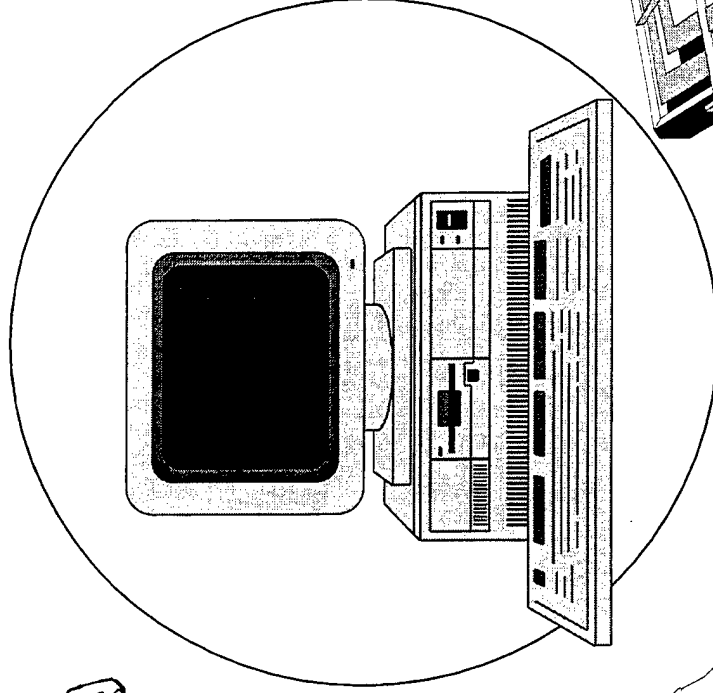
**ACQUISITION OF COMMERCIAL-OFF-THE-SHELF
(COTS) GENERAL PURPOSE, OFFICE AUTOMATION-
PERSONAL COMPUTERS, SOFTWARE AND
PERIPHERALS IN SUPPORT OF THE ARMY'S
POWER PROJECTION AND STRATEGIC MISSIONS.**



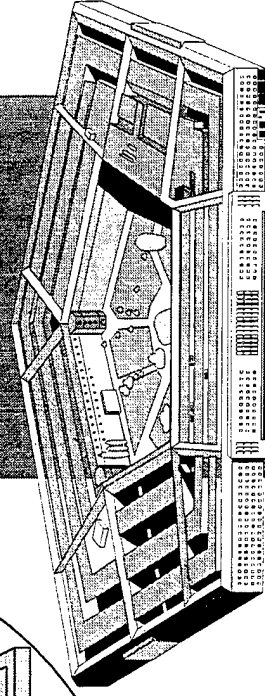
PC-3 PERSONAL COMPUTER



STRATEGIC MISSIONS



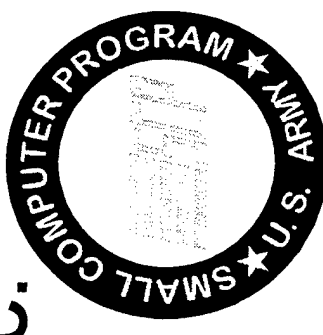
SOFTWARE
& PERIPHERALS



POWER PROJECTION

PC-3 OBJECTIVES

- **SUPPORT NEXT GENERATION OF SOFTWARE
UNDER POSIX AND DOS OPERATING SYSTEMS**
- **ALL COMMERCIAL-OFF-THE-SHELF (COTS)
PRODUCTS**
- **COMPLY WITH ALL DOD TECHNOLOGY MANDATES**
 - **PC-CARD, CD-ROM, ENERGY STAR, ETC.**

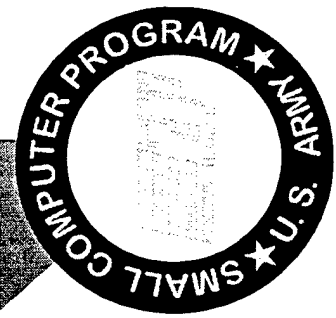


PC-3 OBJECTIVES

- DUAL AWARD (TWO CONTRACTORS)
- 2 YEAR HARDWARE/SOFTWARE ORDERING
- 36 MONTH MINIMUM WARRANTY
- ELECTRONIC ORDER PROCESSING PROJECTED
- FIRM-FIXED-PRICE (FFP) INDEFINITE DELIVERY/
INDEFINITE QUANTITY (ID/IQ) (BEST VALUE
AWARDS)



1995			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	



PC-3 REQUIREMENTS

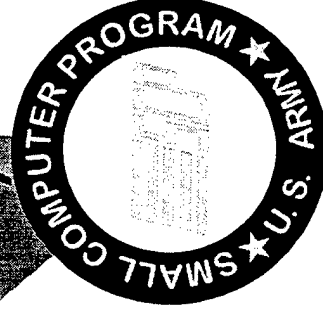
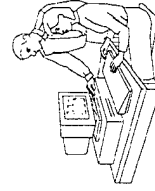
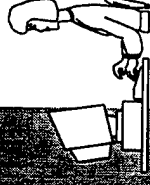
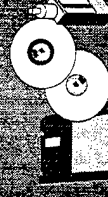
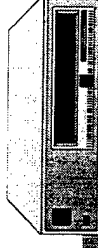
- STATE-OF-THE-ART PLATFORMS-COTS

HARDWARE, SOFTWARE, SINGLE AND
MULTI-USER OPERATING SYSTEMS

- OPEN SYSTEMS STANDARDS COMPLIANCE

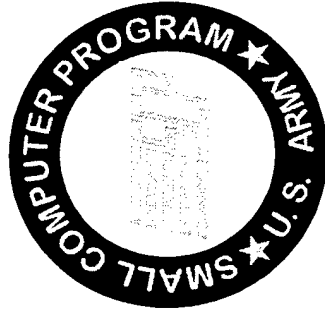
TECHNICAL ARCHITECTURE FRAMEWORK
FOR INFORMATION MANAGEMENT (TAFIM)
INCLUDES POSIX, ETC.

- YEAR 2000 COMPLIANT



PC-3 REQUIREMENTS

- **SYSTEMS CONFIGURATIONS:**
 - **BUNDLED PC AND/OR USER-CONFIGURED PC**
- **PERIPHERALS:**
 - **17" AND 21" MONITORS**
 - **PRINTERS**
 - **(PCMCIA) INTERFACE/PC-CARD**



CONTRACT OPPORTUNITY

TITLE: ARMY PERSONAL COMPUTER - 3

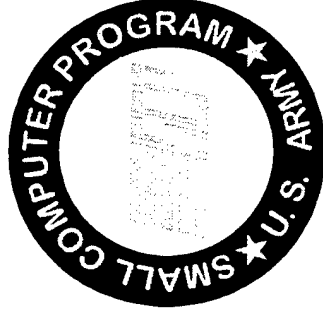
OBJECTIVE: SUPPORT NEXT GENERATION OF SOFTWARE UNDER POSIX/DOS OS

PROPOSED CONTRACT TYPE: FFP ID/IQ (BEST VALUE AWARDS)
COTS HW/SW

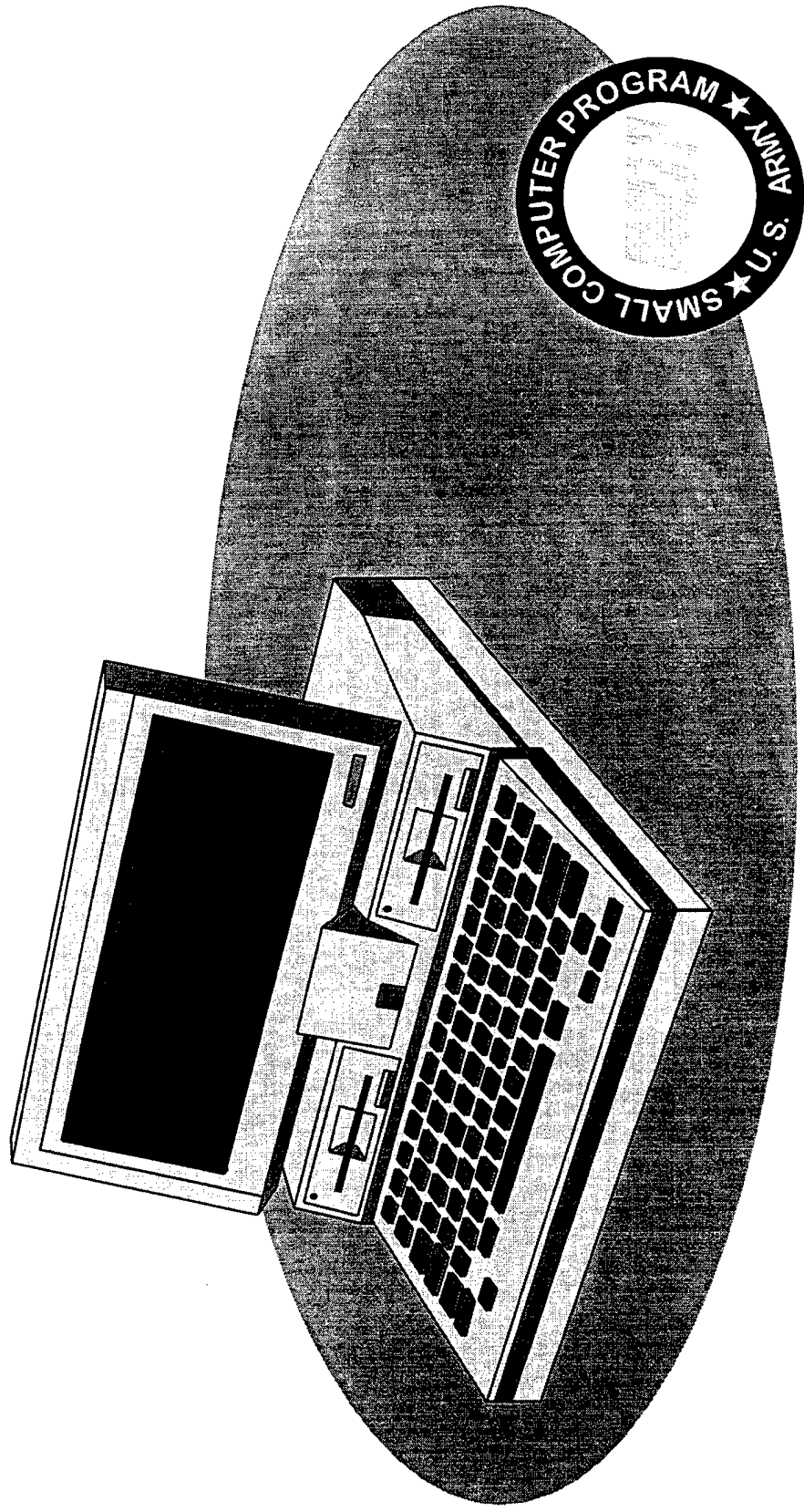
KEY MILESTONES: RFP RELEASE 4TH QTR FY 98
AWARD 1ST QTR FY 99

ESTIMATED VALUE: \$350 - \$550M

POCS: THOMAS J. LEAHY, PM-SCP (908) 532-7994
HELEN GARAMONE, ISSAA (703) 325-9762

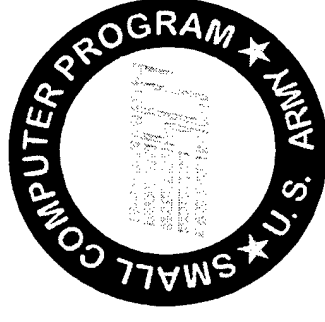


ARMY PORTABLE COMPUTER-3 (PORTABLE-3)



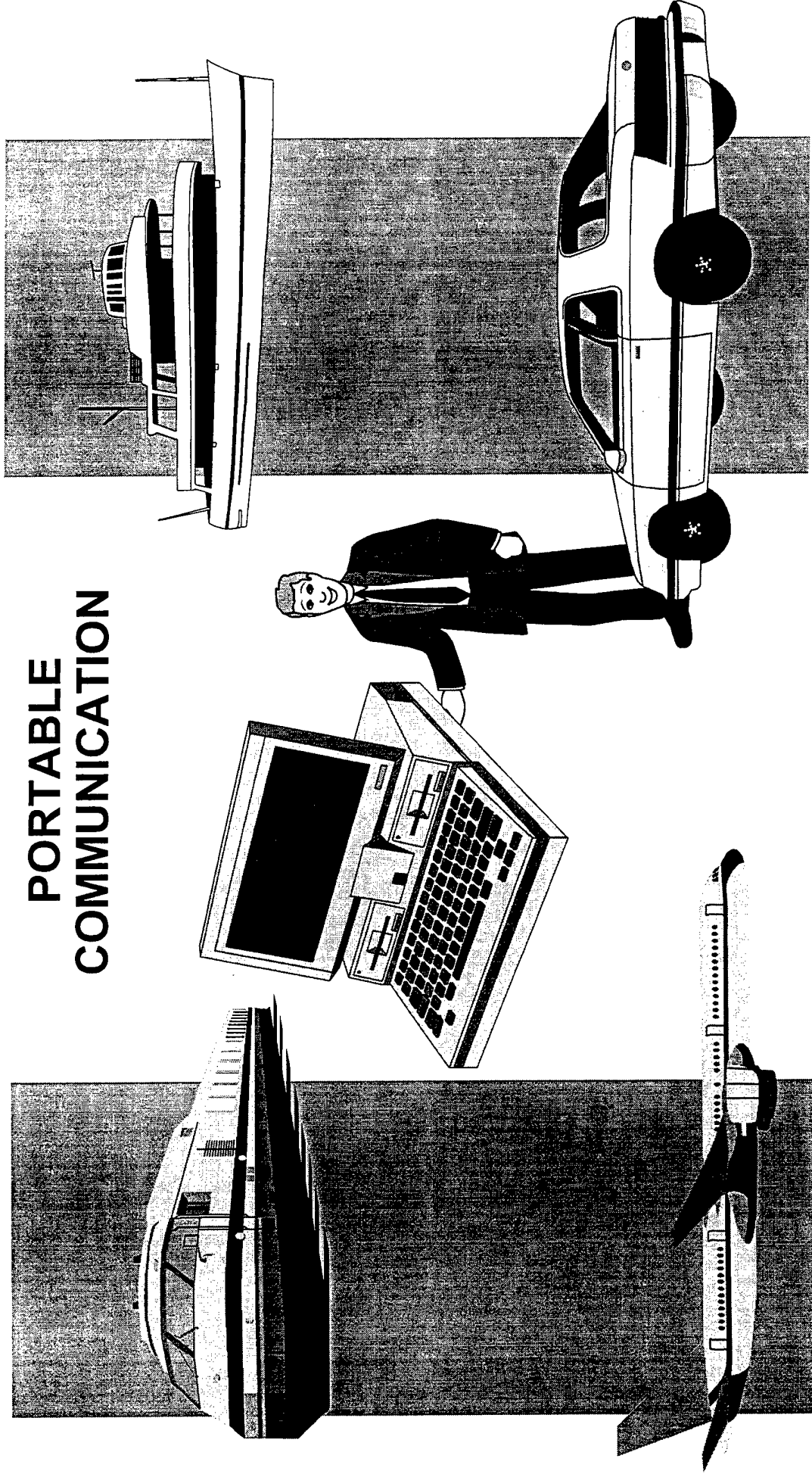
PORTABLE-3 DEFINITION

**ACQUISITION OF COMMERCIAL-OFF-THE-SHELF
(COTS) GENERAL PURPOSE NOTEBOOK AND
HANDHELD COMPUTERS AND PERIPHERALS
IN SUPPORT OF THE ARMY'S PORTABLE
COMMUNICATION AND COMPUTING MISSIONS.**



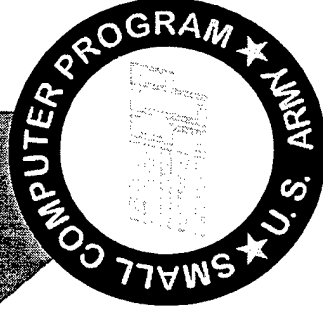
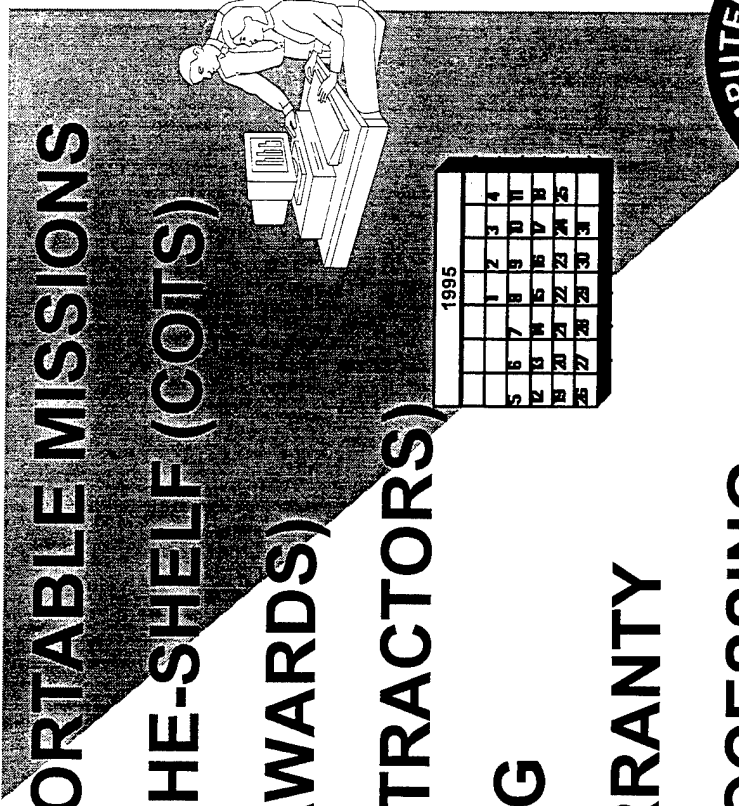
PORTABLE-3

PORTABLE COMMUNICATION



PORTABLE-3 OBJECTIVES

- SUPPORT THE ARMY'S PORTABLE MISSIONS
- ALL COMMERCIAL-OFF-THE-SHELF (COTS)
- FFP ID/IQ (BEST VALUE AWARDS)
- DUAL AWARD (TWO CONTRACTORS)
- 2 YEAR HW/SW ORDERING
- 36 MONTH MINIMUM WARRANTY
- ELECTRONIC ORDER PROCESSING
PROJECTED



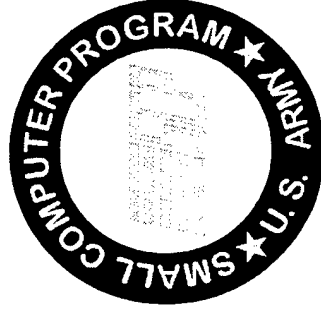
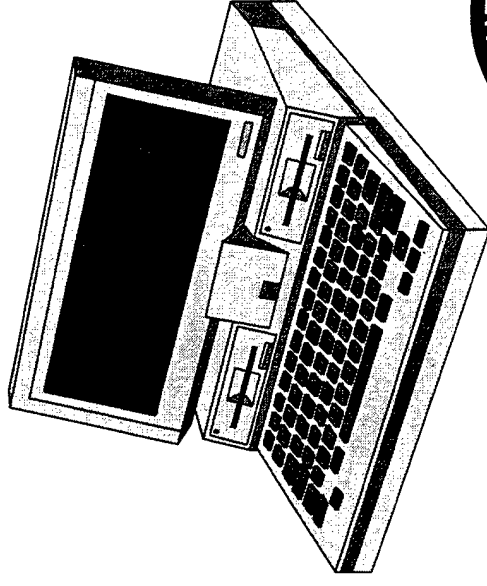
PORTABLE-3 REQUIREMENTS

- STATE-OF-THE-ART PLATFORMS-COTS

- HARDWARE

- SOFTWARE

- DOCKING STATIONS



PORTABLE-3 REQUIREMENTS

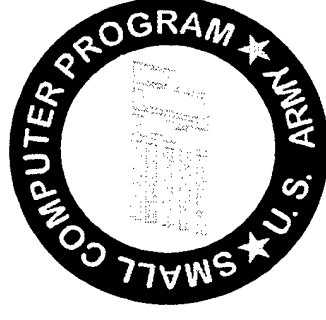
- **SYSTEMS CONFIGURATIONS:**

**NOTEBOOK (COLOR) WITH MULTI-MEDIA
NOTEBOOK (COLOR)**

- **UPGRADES**

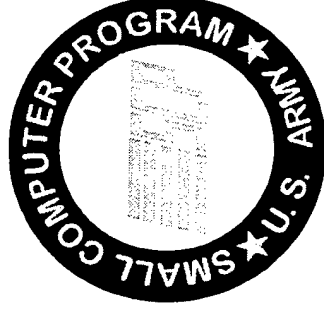
**CPU OPTION
SCREEN OPTION**

- **HANDHELD (PALMTOP) COMPUTER**
- **YEAR 2000 COMPLIANT**



PORTABLE-3 REQUIREMENTS

- **PCMCIA, INTERFACE/PC-CARD:**
 - **MODEM WITH SOFTWARE**
 - **RANDOM ACCESS MEMORY (RAM)**
 - **HARD DRIVE**
 - **FAX WITH SOFTWARE**
 - **NETWORK INTERFACE CARD**



CONTRACT OPPORTUNITY

TITLE:

ARMY PORTABLE COMPUTER - 3
(PORTABLE-3)

OBJECTIVE:

SUPPORT THE ARMY'S
REQUIREMENT FOR PORTABLE
COMMUNICATION AND COMPUTING
CAPABILITIES

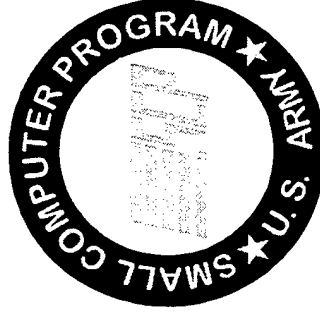
**PROPOSED
CONTRACT
TYPE:**

FFP ID/IQ (BEST VALUE AWARDS)
COTS HW/SW

KEY MILESTONES:

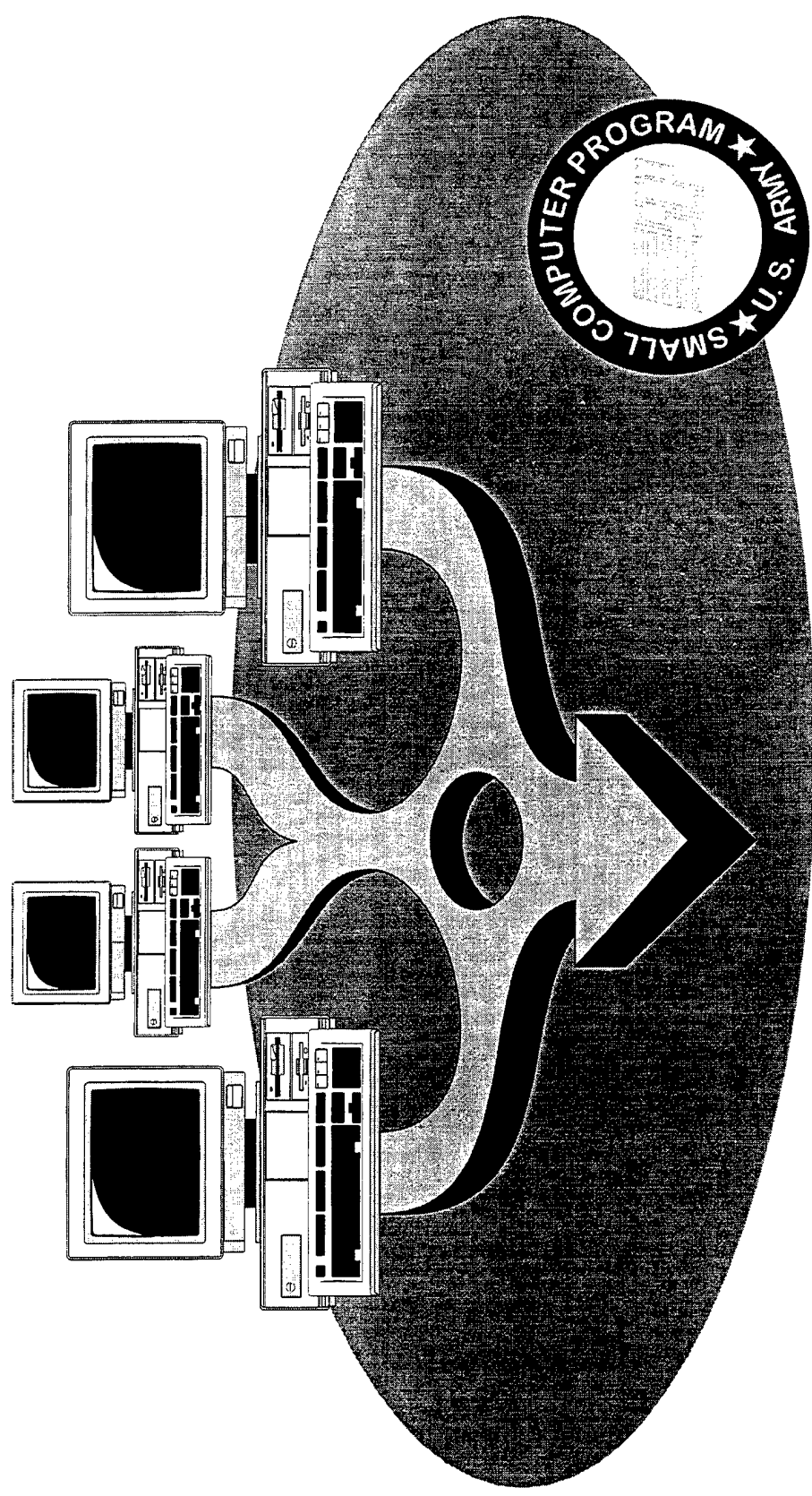
RFP RELEASE 4TH QTR FY 98
AWARD 1ST QTR FY 99

ESTIMATED VALUE \$100M - \$150M



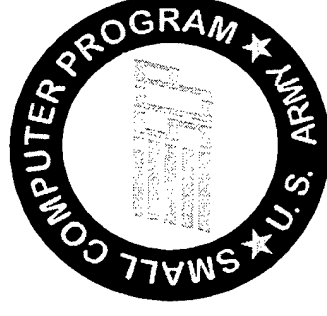
**POCs: THOMAS J. LEAHY, PM-SCP (908) 532-7994
HELEN GARAMONE, ISSAA (703) 325-9762**

SMALL MULTIUSER COMPUTER-III (SMC-III)

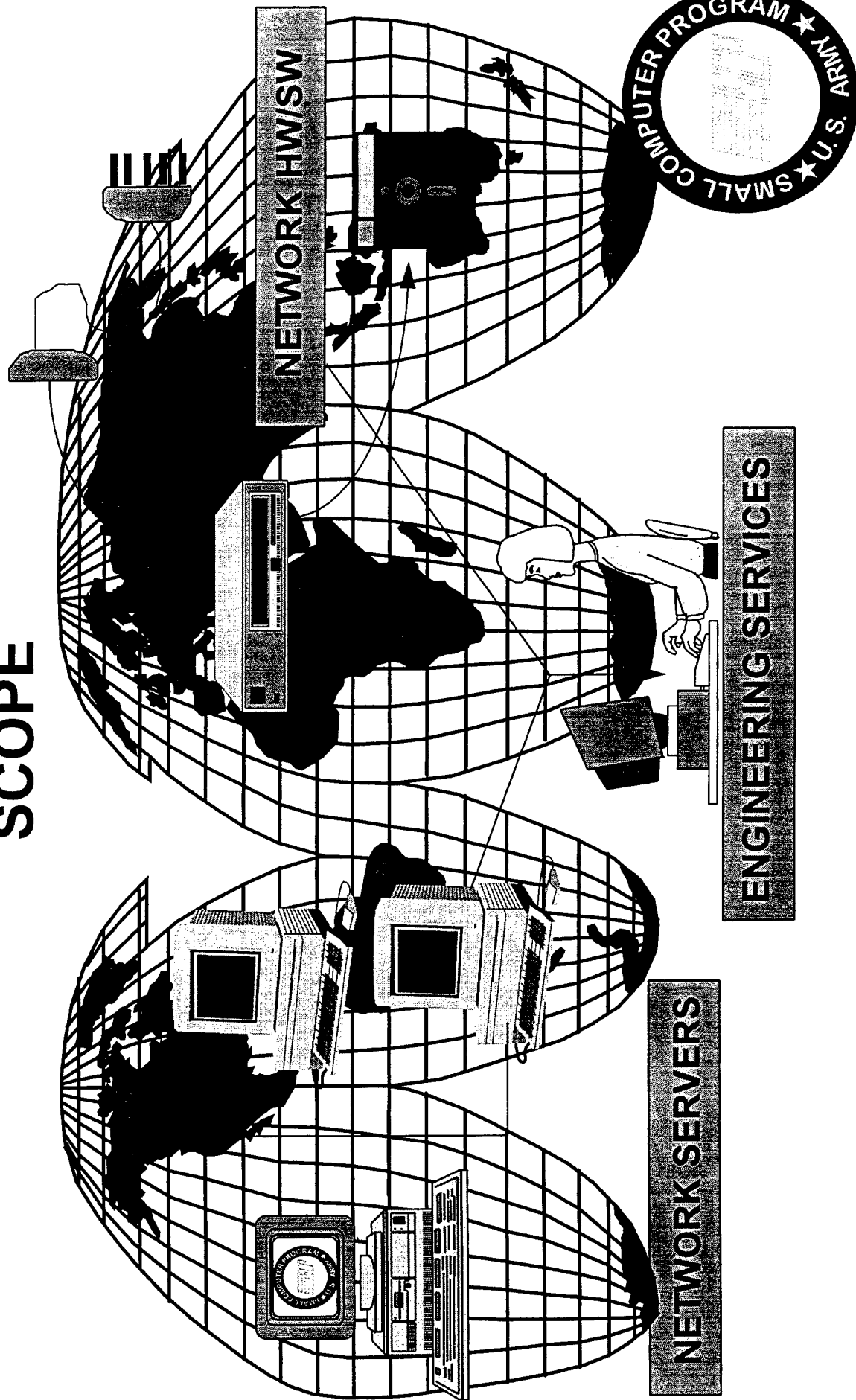


SMC-III DEFINITION

**ACQUISITION OF COMMERCIAL-OFF-THE-SHELF
(COTS) MULTIUSER, SERVER AND NETWORK
SERVER COMPUTER EQUIPMENT, SOFTWARE,
NETWORKING COMPONENTS, AND TECHNICAL
SUPPORT SERVICES TO SUPPORT ARMY, NAVY,
AIR FORCE, AND DOD AGENCIES' OFFICE
AUTOMATION REQUIREMENTS.**

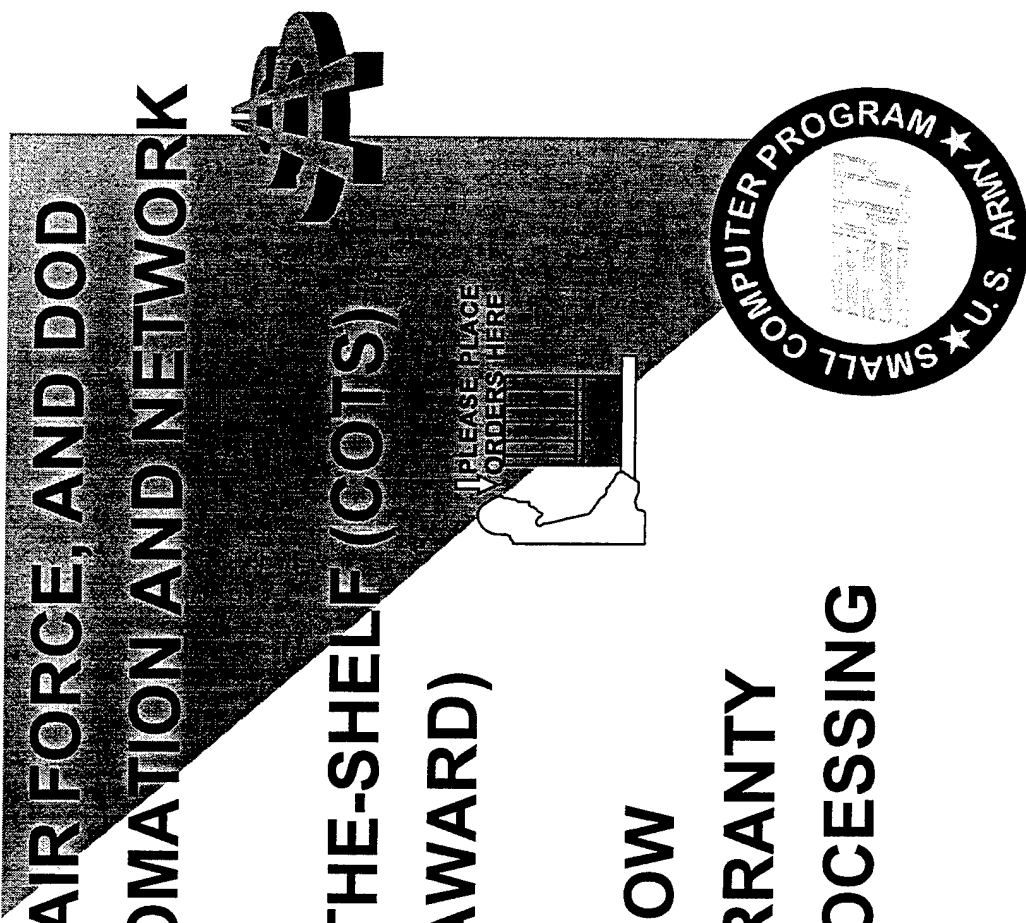


SMC-III SCOPE



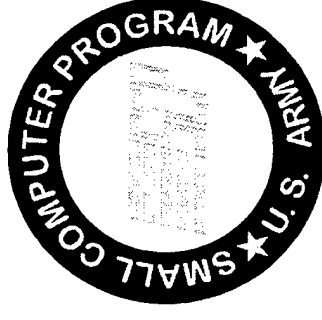
SMC-III OBJECTIVES

- **SUPPORT ARMY, NAVY, AIR FORCE, AND DOD
AGENCIES' OFFICE AUTOMATION AND NETWORK
REQUIREMENTS**
- **ALL COMMERCIAL-OFF-THE-SHELF (COTS)**
- **FFP ID/IQ (BEST VALUE AWARD)**
- **SINGLE AWARD**
- **3 YEAR ORDERING WINDOW**
- **36 MONTH MINIMUM WARRANTY**
- **ELECTRONIC ORDER PROCESSING
PROJECTED**



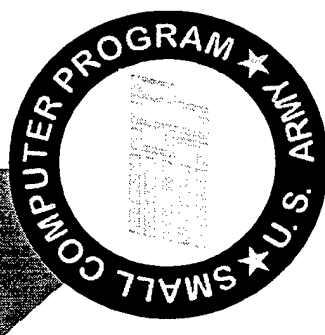
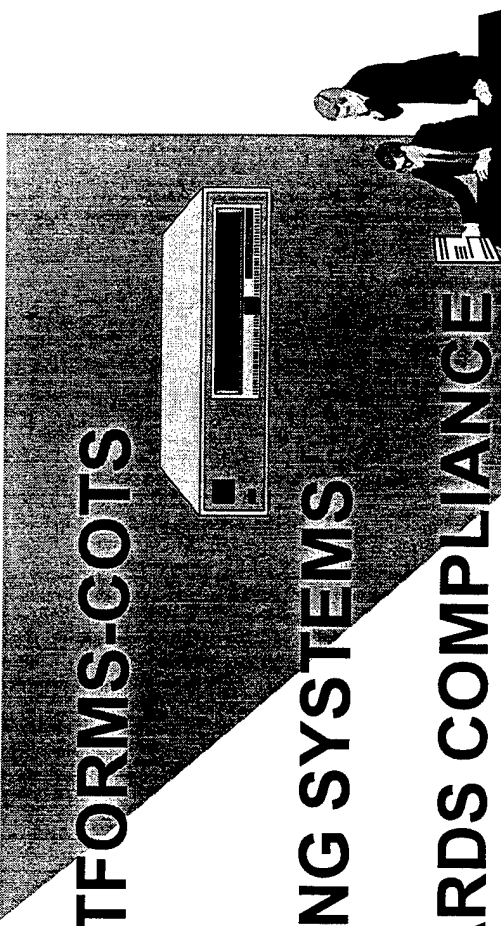
SMC-III REQUIREMENTS

- **NETWORK SERVERS**
- **NETWORKING COMPONENTS**
- **TECHNICAL SUPPORT SERVICES**



SMC-III REQUIREMENTS

- STATE-OF-THE-ART PLATFORMS-COTS
 - HARDWARE
 - MULTIUSER OPERATING SYSTEMS
- OPEN SYSTEMS STANDARDS COMPLIANCE
 - TECHNICAL ARCHITECTURE FRAMEWORK FOR INFORMATION MANAGEMENT (TAFIM)
INCLUDES POSIX, ETC.
- YEAR 2000 COMPLIANT



CONTRACT OPPORTUNITY

TITLE: SMALL MULTIUSER COMPUTER-III
(SMC- III)

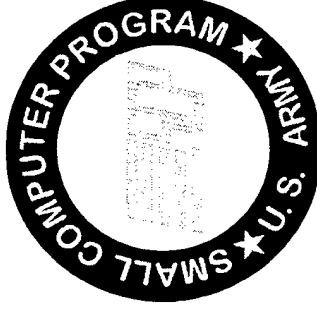
OBJECTIVE: ARMY/JOINT SERVICE NETWORK
SERVERS/SOLUTIONS FOR OFFICE
AUTOMATION REQUIREMENTS

**PROPOSED
CONTRACT
TYPE:** FFP ID/IQ (BEST VALUE AWARD)

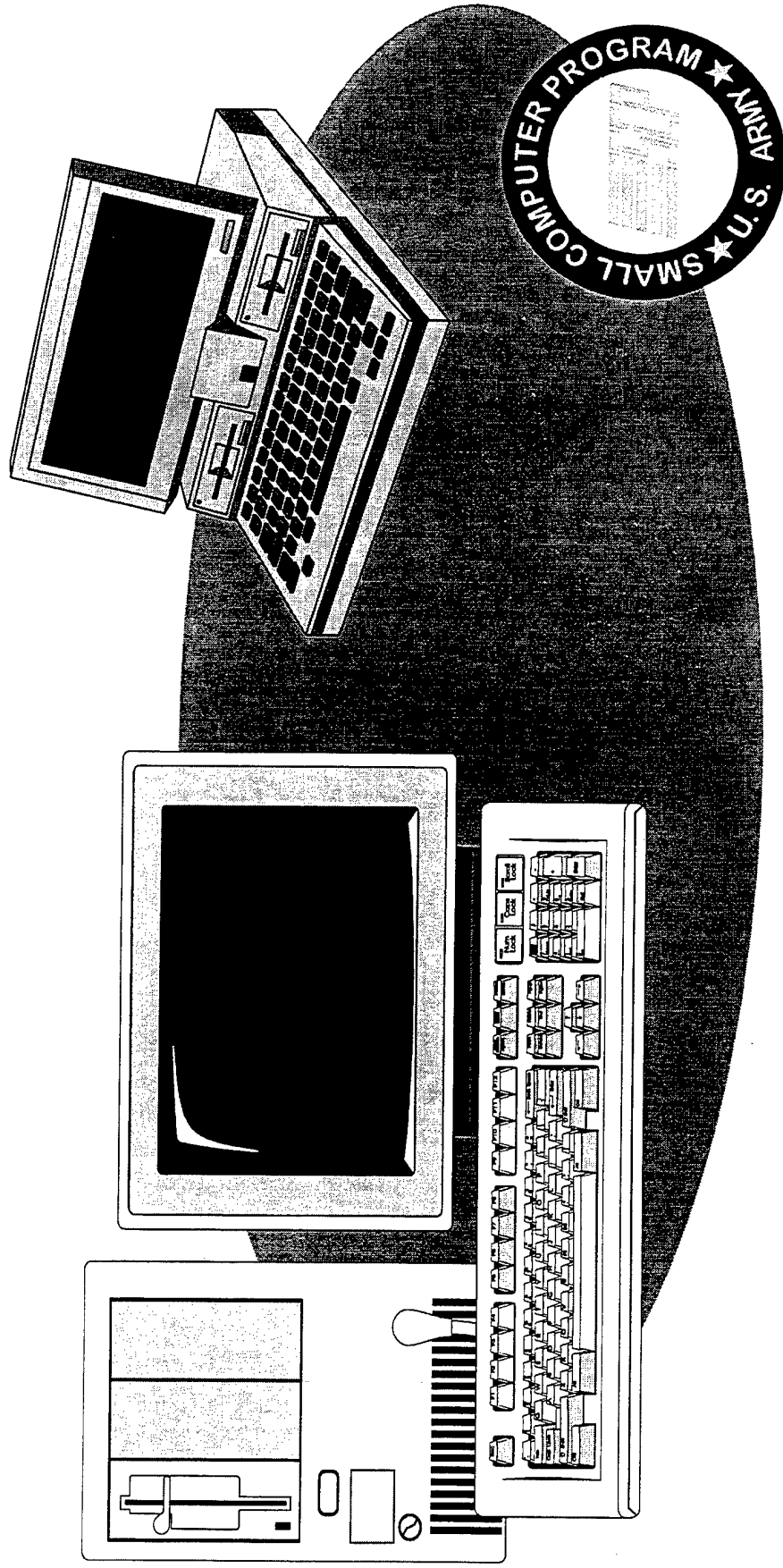
KEY MILESTONES: DRAFT RFP RELEASE - 4TH QTR FY 97,
RFP RELEASE - 2ND QTR FY 98,
AWARD - 4TH QTR FY 98

ESTIMATED VALUE: \$300M - \$500M

POCs: THOMAS J. LEAHY, PM-SCP (908) 532-7994
HELEN GARAMONE, ISSAA (703) 325-9762

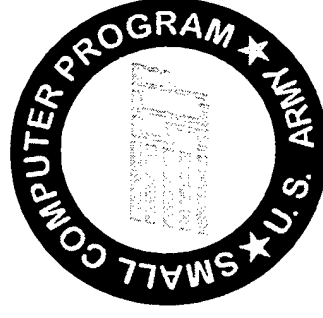


STANDARD SYSTEMS TECHNOLOGY SUPPORT - 1 (SSTS-1)



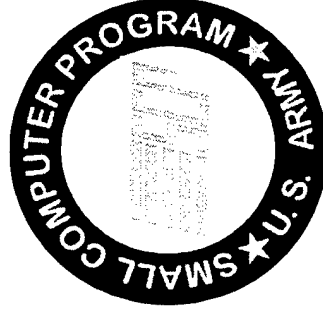
SSTS-1 DEFINITION

**ACQUISITION OF COMMERCIAL-OFF-THE-SHELF (COTS)
PERIPHERALS, CPU UPGRADES, SW UPGRADES, AND
NEW TECHNOLOGY TO SUPPORT THE ARMY'S FIELDDED
COMPUTER BASE.**



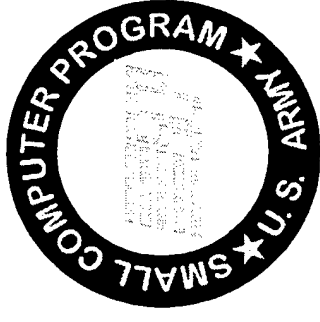
SSTS-1 OBJECTIVES

- **ARMY (LEAD), DLA, DISA, CIVIL AGENCIES**
- **2-YEAR ORDERING WINDOW**
- **SINGLE AWARD**
- **3-YEAR MINIMUM WARRANTY**
- **WIDE-OPEN TECH INSERTION**



SSTS-1 REQUIREMENTS

- **MAXIMIZE GOVERNMENT (TAXPAYER)
INVESTMENT IN CURRENT ADP**
 - **EXTEND USEFUL LIFE OF PCs,
SERVERS 5-7 YEARS**
 - **SUPPORT THE TECHNOLOGY OF**
 - **PC-1, PORTABLE-1, SMC-I**
 - **OTHER STANDARD SYSTEMS**
 - **JOINT SERVICE CONTRACTS**
- DTIV, SMSCRC**



CONTRACT OPPORTUNITY

TITLE:

STANDARD SYSTEMS TECHNOLOGY
SUPPORT - 1 (SSTS-1)

OBJECTIVE:

COTS, EQUIPMENT/SW TO SUPPORT
ARMY REQUIREMENTS TO EXTEND
FIELDDED ADP BASE INVESTMENT LIFE

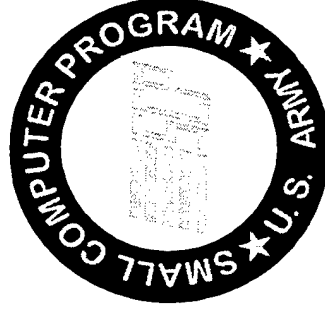
**PROPOSED
CONTRACT
TYPE:**

FFP ID/IQ (BEST VALUE AWARD)
COTS HW/SW

KEY MILESTONES: RFP RELEASE 1ST QTR FY 97
AWARD 3RD QTR FY 97

ESTIMATED VALUE: \$150 - \$250M

POCs: THOMAS J. LEAHY, PM-SCP (908) 532-7994
HELEN GARAMONE, ISSAA (703) 325-9762





NOTES

SESSION IV

INTELLIGENCE AND ELECTRONIC
WARFARE AND SENSORS
TECHNOLOGIES AND
MODERNIZATION

MODERATOR

MR. EDWARD T. BAIR

DEPUTY PROGRAM
EXECUTIVE OFFICER
INTELLIGENCE AND ELECTRONIC
WARFARE



Session IV



Intelligence, Electronic Warfare & Sensors

Technology and Modernization Opportunities

Edward Bair
Deputy Program Executive Officer
for
Intelligence & Electronic Warfare

UNCLASSIFIED



Agenda

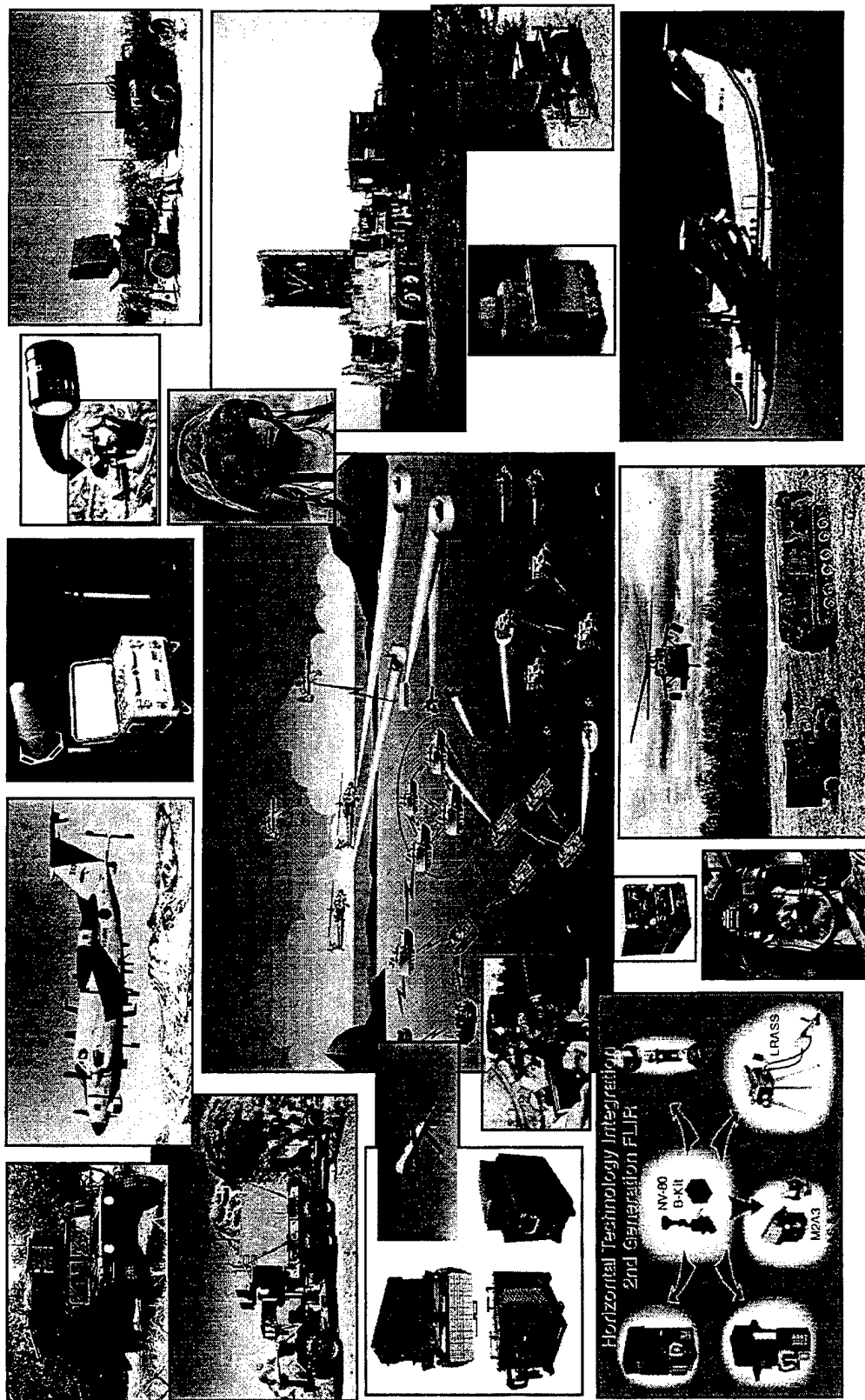


Topic	Organization	Briefer
Overview	PEO IEW	Mr Edward Bair
IEW Technology	CECOM IEW Directorate	Mr Stephen Makrinos
FIREFINDER P31	PM FIREFINDER	LTC Thomas Cole
Countermine Efforts	CECOM - NVES Directorate	Mr James Campbell
Multi Function Sensor Suite	CECOM - NVES Directorate	Mr Steven Holt
Night Vision & Electronic Sensor Systems	PM NV/RSTA	Mr Brian Murray

IEW

PROGRAM EXECUTIVE OFFICE

Overview



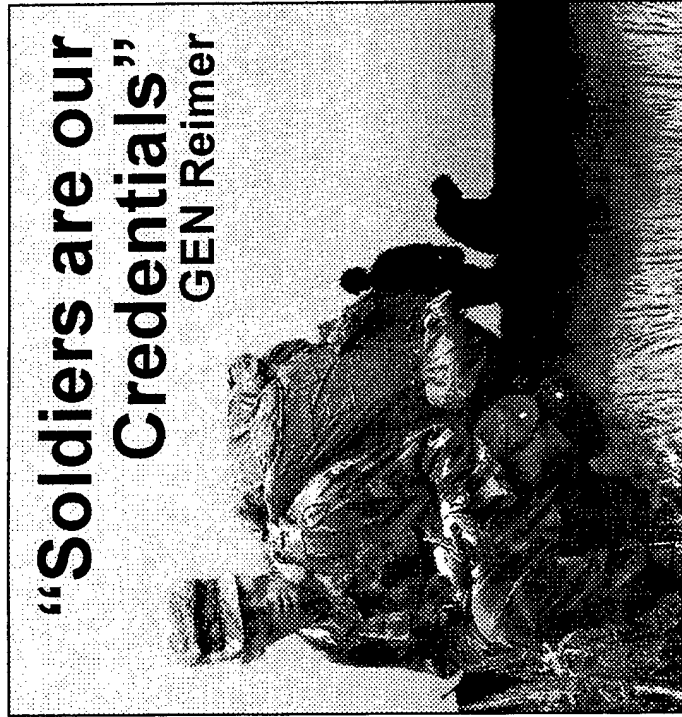


1995 APBI Report Card

Opportunity	Approximate Value	RFP Release		Projected Award	
		1995 APBI	Current	1995 APBI	Current
• OMNIBUS IV	\$50-300M	3QFY95	3QFY95	4QFY95	4QFY96
• Driver Vision Enhancer (DVE)	<6 RDTE	3QFY95	3QFY95	4QFY95	4QFY95
• Long Range Advance Scout Surveillance System (LRAS3)	\$10-17M RDTE \$15M Prod	1QFY97	1QFY97	2QFY97	TBD
• Laser Countermeasure System (Now TLOS)	\$13M RDTE \$122M Prod	1QFY95	1QFY95	3QFY96	3QFY96
• FIREFINDER P3I Pre-Planned Product Improvement (P3I)	\$480-590M	FY97	Aug 97	FY98	Mar 98
• Intercept Technology	\$1M	FY96	FY97/98	FY96	FY97/98
• Tactical Intelligence Data Fusion	\$2M	FY96	FY97/98	FY96	FY97/98
• Common Module Sensor Program For Unmanned UAVs	\$5-8M	TBD	FY97	FY98	FY98
• Air/Land Enhance Reconnaissance and Targeting	\$4-7M	FY97	FY97	FY97	FY97



Intelligence, Electronic Warfare & Sensors



Capabilities

- Wide-Area Surveillance
- Increased Targeting Accuracy
- Direct Support To Brigade
- Soldier/Maneuver Support
- Battlefield Intel Fusion
- Own The Night
- Dominate The Spectrum

Enablers

- Leverage Off Advanced Commercial Technologies
- Best Commercial Practices
- Performance Based Specs
- Horizontal Technology Integration (HTI)
- Integrated Product Teams
- Partnering With Industry
- Cost As an Independent Variable (CAIV)

Funding (\$M)

	FY96	FY97	FY98	FY99-07
RDTE	<\$2M	<\$22M	<\$101M	<\$169M
Procurement	<\$6.6M	<\$59M	<\$532M	<\$743.6M

RDTE Total: <\$169M

Procurement Total: <\$743.6M

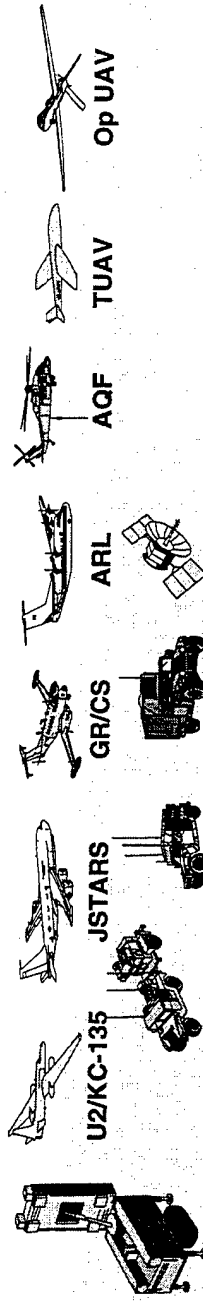
IEW

PROGRAM EXECUTIVE OFFICE

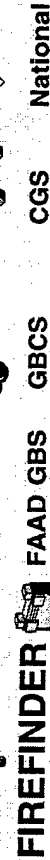
Increased Capabilities

Wide Area Surveillance

- Airborne

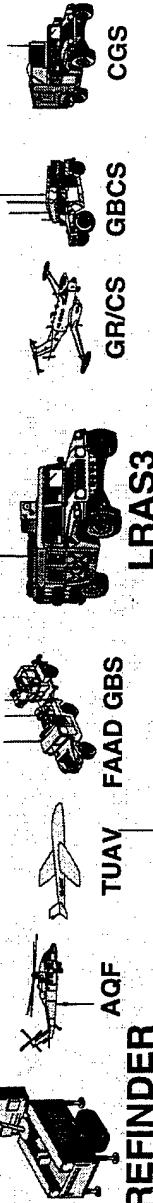


- Ground-Based FIREFINDER



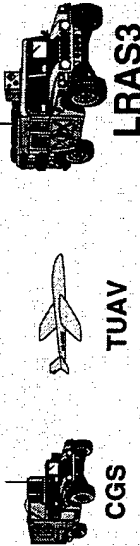
Increased Targeting Accuracy

- Sensor-to-Shooter



Direct Support to Brigade

- See Over the Hill



Support to Soldier and Maneuver

- Increased Battle Tempo and Lethality



Battlefield Intel Fusion



ASAS

Technology

Mine Hunter/Killer

Multi Function Sensor Suite

Data Intelligence Data Fusion

Light Airborne Multi-Spectral Countermine Detection System



Own The Night Systems & Migrations

Legacy Baseline (\leq FY96)

Thermal

- First GEN FLIR



Image

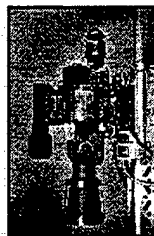
Intensification

- VVS-2
- ANVIS
- SNS
- PVS-7



Laser

- MELIOS
- ARL



Migration Baseline (FY02 \geq)

Thermal

- Second GEN FLIR (LRAS3)
- Aviation FLIR
- DVE
- TWS

Image

Intensification

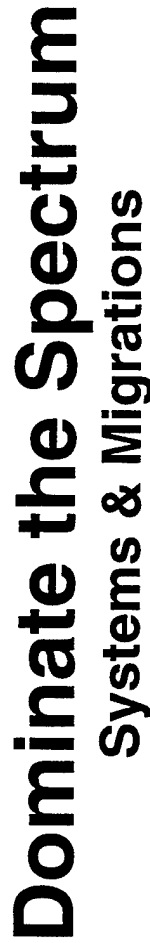
- INOD/MNVD

Laser

- BLDR
- TLOS

Image Capture/Send

- LVRS



Sensors

Airborne

- **TRAILBLAZER** • **LSDIS**
- **TRAFFICJAM** • **BCIS**
- **TEAMMATE** • **SEPS**
- **TEAMPACK** • **GBCS-L**
- **TACJAM** • **GBCS-H**
- **LMRDFS** • **FF AN/TPQ-36**
- **TRACKWOLF** • **FF AN/TPQ-37**
- **E-TRACKWOLF**

- MOHAWK
- ARL-I, C and M
- GR/CS
- QUICKLOOK
- QUICKLOOK II
- TESAR
- SR-UAV
- JSTARS

Non-Sensor Processing

- GR/CS IPF
- EPDS/ETUT/A-EPDS
- FAST/MIIT
- MIES/TRAC
- GSM/CGS
- CTT
- SUCCESS
- TROJAN SPIRIT



Sensors

Ground SIGINT/EW

- GBCS-L
- GBCS-H
- GBS P3I
- FF P31
- LRAS3

Airborne

- CID
- ACS
- AQF
- JT UAV
- Ops UAV
- JSTARS

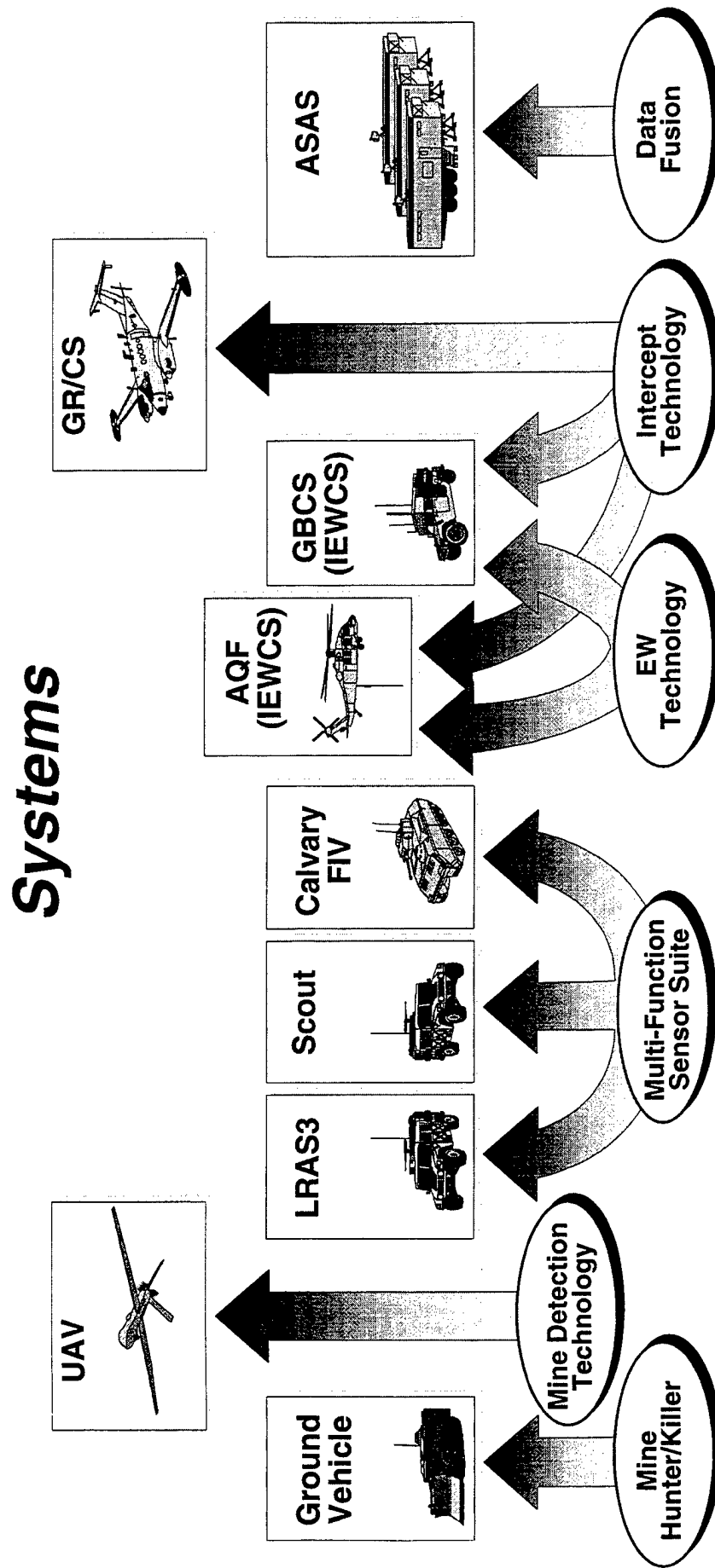
Non-Sensor Processing

Correlation and Dissemination

- ACS IPF
- CGS
- JTT



IEW & Sensors Technology to System Linkage





Summary of Opportunities to Be Presented

Intercept Technology	RDTE	\$1M
Electronic Warfare Technology	RDTE	\$2M
Tactical Intelligence Data Fusion	RDTE	\$2M
FIREFINDER P3I	RDTE	\$70M - \$80M
	Production	\$400M - \$500M
Mine Hunter/Killer	RDTE	\$6M - \$12M
Lightweight, Airborne Multi-Spectral Counter Mine Detection System	RDTE	\$4M - \$7M
Multi-Function Sensor Suite	RDTE	\$23M - \$25M
Thermal OMNIBUS DVE } TWS	Production	<\$100M
Target Location & Observation System	RDTE	\$13M
	Production	\$122M
Long Range Advanced Scout Surveillance System	RDTE	<\$10M - \$17M
	Production	<\$15M
Total FY96 - 07	RDTE	\$131M - \$159M
	Production	\$637M - \$737M



NOTES

INTELLIGENCE AND ELECTRONIC
WARFARE TECHNOLOGY



MR. STEPHEN T. MAKRINOS
AMSEL-RD-IEW-TSA-M

UNCLASSIFIED

22 July 1996

POINT PAPER

SUBJECT: Intelligence and Electronic Warfare Technology

OBJECTIVE: To provide information on the CECOM Intelligence and Electronic Warfare Directorate's (IEWD's) interest and contract opportunities in the areas of Intercept Technology, Electronic Warfare Technology and Tactical Intelligence Data Fusion Technology. We also want to acquaint industry with the IEWD Information Operations Special Project Office (IO SPO).

FACTS: IEWD is developing the technologies necessary for U.S. Army systems to locate and exploit hostile command, control, communications and electronic systems; and, to process, analyze and report battlefield intelligence.

This briefing describes the technology programs that support these three areas. It also provides general timelines for industry involvement and current funding ranges.

BRIEFER: Mr. Stephen Makrinos, Advanced Concept Division, AMSEL-RD-IEW-TAS-M, (908) 544-5504, DSN 987-5504.

ACTION OFFICER:
Linda Monroe
GS-9/PA
Technology Transfer Coordinator
Commercial (703) 349-7370
DSN 229-7370

IEWD TECHNICAL AREAS

Provide the U.S. Army effective Command and Control and Information Warfare:

Signals Intelligence

Electronic Support/Attack

Measurement and Signature Intelligence

Meteorological Sensing

Intelligence Data Fusion and Dissemination

Functions:

- Define, develop and acquire superior technologies
- Prototype and evaluate advanced system concepts
- Develop and Acquire non-major systems and equipment
- Provide development and acquisition support to Program Executive Officers and Project Managers (PEO/PM)

AGENDA

INTERCEPT TECHNOLOGY

ELECTRONIC WARFARE TECHNOLOGY

**TACTICAL INTELLIGENCE DATA FUSION
TECHNOLOGY**

**INFORMATION OPERATIONS SPECIAL
PROJECT OFFICE**



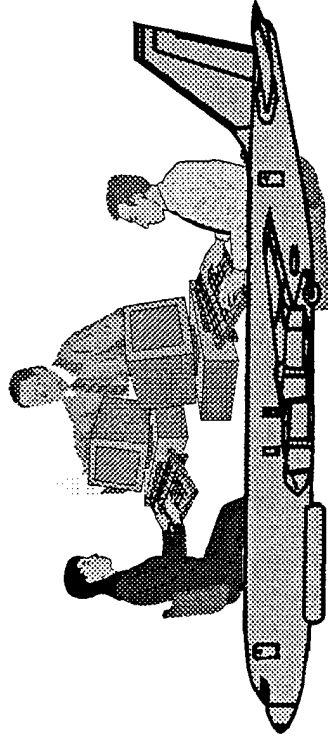
INTERCEPT TECHNOLOGY

INTERCEPT TECHNOLOGY

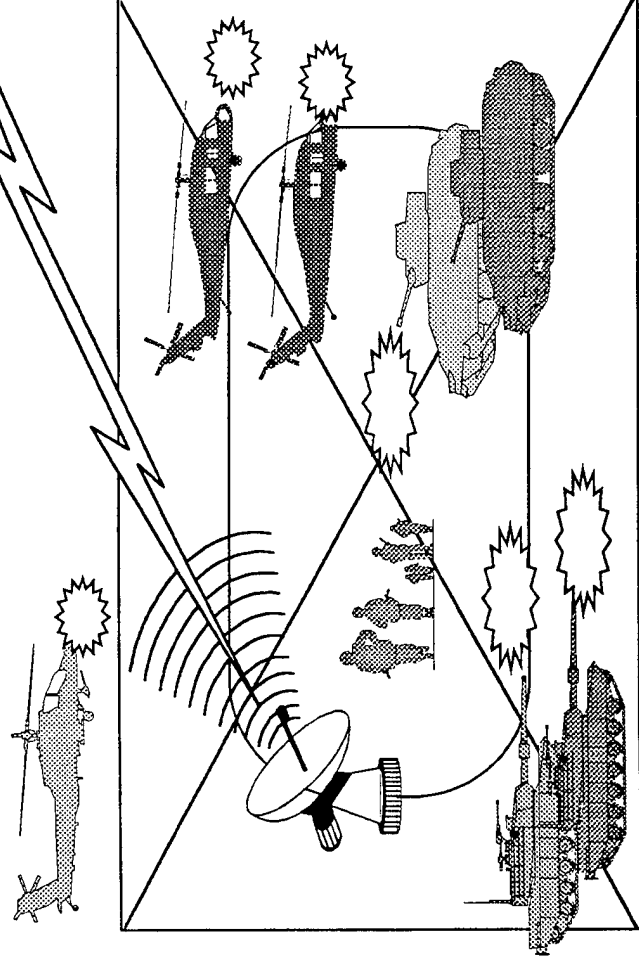
DESCRIPTION

**Detect, demodulate, identify and geo-locate
hostile command, control, communications
(C3) and radar systems**

Technology Challenges in Electronic Warfare Support



Signal Processing



COMINT & ELINT

- Exploit modern signals
- Improve geo-location accuracies
- Automate process

INTERCEPT TECHNOLOGY

CURRENT REQUIREMENTS

- **Increase range of ground and airborne intercept systems**
- **Handle current and projected target signals**
- **Automate the signal intercept process**
- **Reduce size and power requirements of intercept equipment**
- **Increase emitter geo-location accuracy**

INTERCEPT TECHNOLOGY

TIMELINES

NEAR TERM FY97-FY99

- **Interference reduction utilizing super-resolution and other analog and digital signal processing techniques**
 - **FY98 available to IEWCS**
- **Automated signals intercept, recognition and collection**
 - **FY98 available to IEWCS**
- **Reconfigurable receivers capable of multi-mission configurations**
 - **FY99 available to IEWCS**

INTERCEPT TECHNOLOGY TIMELINES

LONG TERM FY99-FY02

- Improved geo-location of advanced communications and non-communications signals
 - FY01 available to IEWCS
- Wideband modulation exploitation
 - FY02 available to IEWCS

INTERCEPT TECHNOLOGY

INTERFACES/TRANSITIONS

- **Transition technology to Army intercept systems, such as family of IEW Common Sensors, as part of the planned block upgrades**
- **Maximum use of commercial specification (COM-SPEC) testbeds and prototypes**
- **Common hardware/software modules for rapid integration into the R&D community**

INTERCEPT TECHNOLOGY CONTRACT OPPORTUNITY

- **Title: Advanced Intercept Techniques**
- **Objectives:**
 - Improve direction finding accuracies
 - Exploitation of modern signals
 - Automate the signal intercept process
- **Type: CPFF contracts from BAA& SBIR solicitations**
- **Schedule: Award dates: FY97-98**
(BAA closes Jan 97 for FY97 award)

INTERCEPT TECHNOLOGY CONTRACT OPPORTUNITY

(Continued)

- **Estimated Value: \$750K to \$1M for FY97-98**
- **POC/Telephone No.: J. Thomas Dizer (540) 349-7324**
- **Contracting Officer POC: Lynda Cooper
(540)349-5966**

ELECTRONIC WARFARE TECHNOLOGY

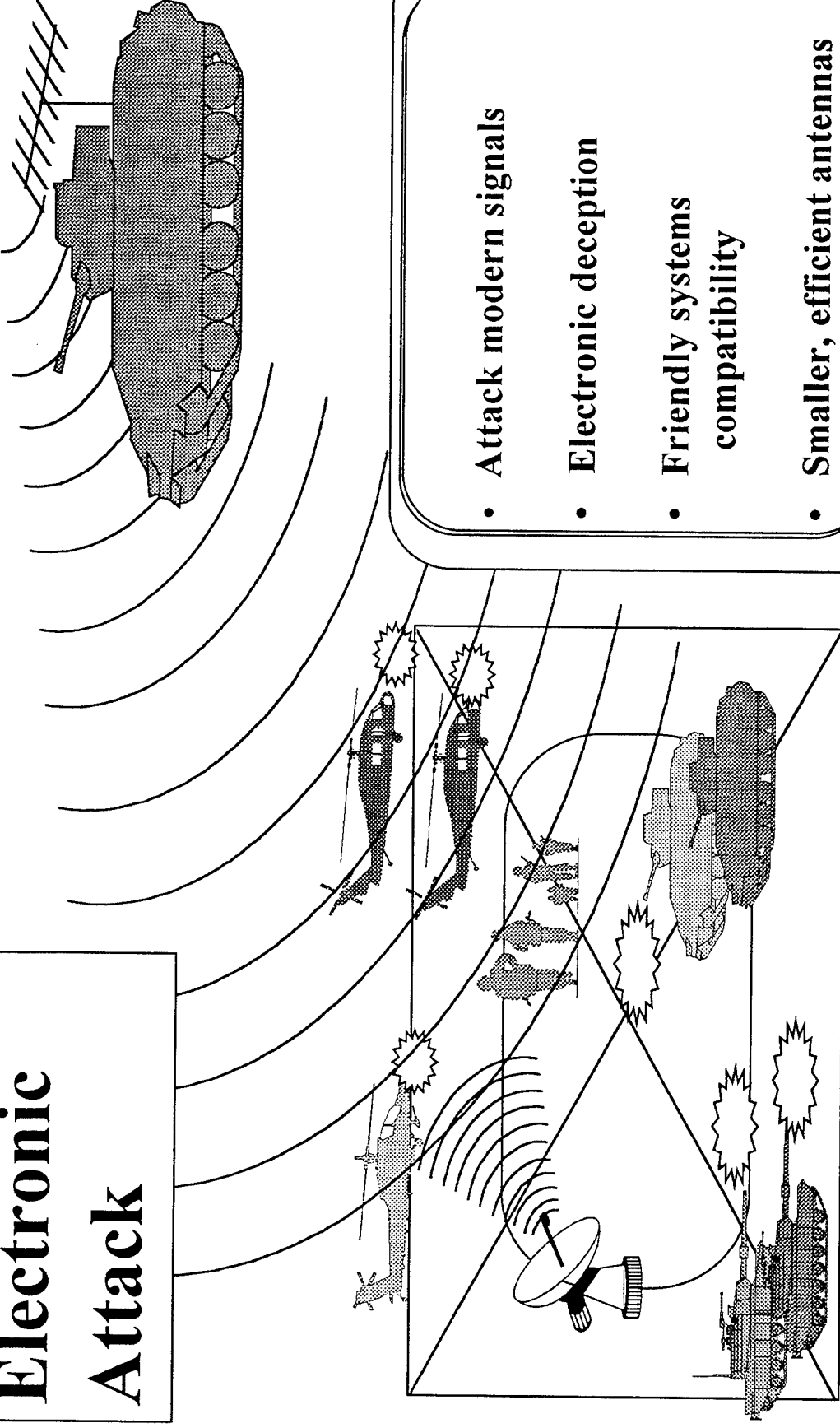


EW TECHNOLOGY DESCRIPTION

**Deny hostile units use of their
command, control, communications
(C3) and radar systems**

Technology Challenges in Electronic Attack

Communications and Non-Communications Antennas and Receivers



EW TECHNOLOGY CURRENT REQUIREMENTS

- **Multiband coverage**
- **Effective operation in dense signal environment**
- **Efficient power requirements**
- **Technologies must be suitable for mobile tactical implementation**
- **Less dependence on operators**

EW TECHNOLOGY

TIMELINES

NEAR TERM FY97-FY99

- **Develop antenna technology for efficient tactical and multiband antennas**
 - **FY98-FY99 available to IEWCS**
- **Develop EA capabilities against modern mobile and digital C3 communications systems**
 - **FY97-FY02 continuous efforts. Threat signal dependent directed towards IEWCS**

EW TECHNOLOGY

TIMELINES

NEAR TERM FY97-FY99 (Continued)

- Continue development of electronic intelligence and support measures against highly agile and low probability of intercept emitters
 - FY97-FY02 - continuous technology upgrade development for IEWCS

EW TECHNOLOGY TIMELINES

LONG TERM 99-02

- **Develop EA capabilities against modern mobile and digital C3 communications systems - FY97-FY02 continuous efforts. Threat signal dependent directed towards IEWCS**
- **Continue development of electronic intelligence and support measures against highly agile and low probability of intercept emitters - FY97-FY02 continuous technology upgrade development for IEWCS**

EW TECHNOLOGY TIMELINES

LONG TERM 99-02 (Continued)

- **Explore UAV Electronic Attack (EA) capabilities
- FY98-FY99 available to IEWCS**

EW TECHNOLOGY INTERFACES/TRANSITIONS

- Ability to jam from remote and mobile platforms
- Transition technology to Army IEW Common Sensor (IEWCS) Family

EW TECHNOLOGY CONTRACT OPPORTUNITY

- **Title: Electronic Warfare Techniques**
- **Objectives:**
 - Communication jammer components, including small HF antennas
 - Electronic warfare against new signals
 - Application of breakthrough technologies to communications EW
- **Type: CPFF contracts from BAA & SBIR solicitations**

EW TECHNOLOGY CONTRACT OPPORTUNITY (Continued)

- **Schedule - Award dates: FY97-98
(BAA closes Jan 97 for FY97 award)**
- **Estimated Value: \$1M to \$2M for FY97-98**
- **POC/Telephone No.: J. Thomas Dizer (540) 349-7324**
- **Contracting Officer POC: Lynda Cooper
(540) 349-5699**



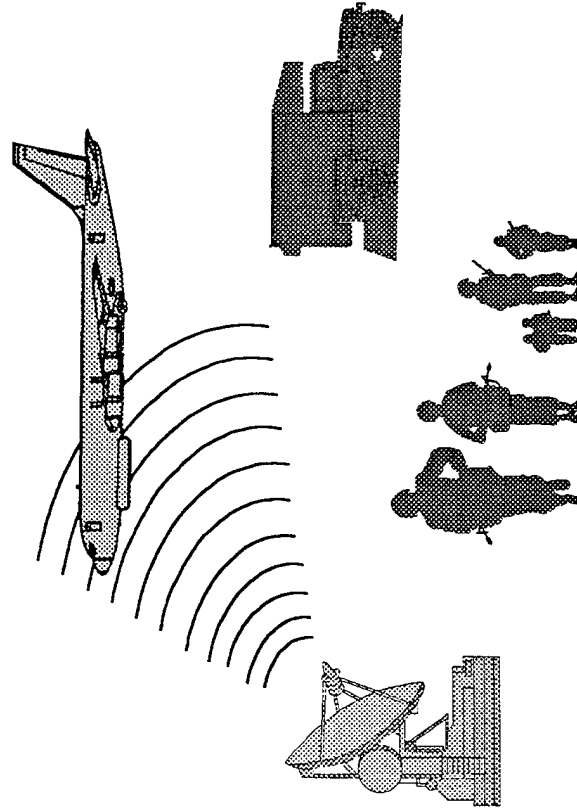
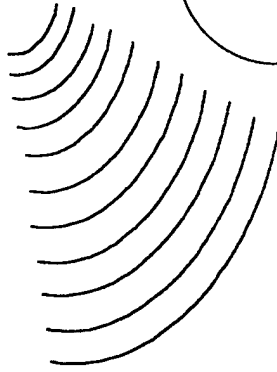
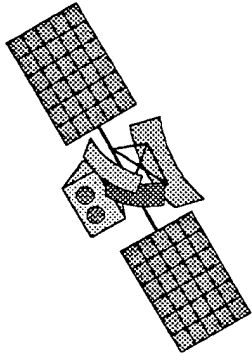
TACTICAL INTELLIGENCE DATA FUSION

TACTICAL INTEL DATA FUSION

DESCRIPTION

Association, correlation, and combination of data and information from multiple sources to generate battlefield intelligence

Technology Challenges in Intelligence Data Fusion



- Database to database interface
- Collector/jammer cement
- Moving Target Indicator/SIGINT Fusion
- Graphical overlay set operation generation
- Battlefield damage assessment

TACTICAL INTEL DATA FUSION

CURRENT REQUIREMENTS

- **Advanced Intelligence Dissemination and Reporting - Data Base to Data Base Interface (DB2I)**
- **Sensor allocation/Sensor management - Ground/Airborne**
- **Intelligence Preparation of the Battlefield (IPB) overlay generation**
- **Battlefield Damage Assessment**

TACTICAL INTEL DATA FUSION

CURRENT REQUIREMENTS

(Continued)

- **SIGINT Templating of Battlefield Entities with minimal apriori doctrinal information**
- **Technologies to support Battle Labs and All Source Analysis System**
- **Terrain and feature reasoning**
- **Explore other innovative intelligence data fusion technologies**

TACTICAL INTEL DATA FUSION TIMELINES

NEAR TERM FY97-FY99

- **Seamless multimedia database-to-database interface (DB2I)**
 - **FY97 - TF XXI AWE (IEWCS to CGS-P)**
 - **FY98-FY99 - Generic Interface/Smart Agents**
- **Advanced sensor placement - transition to PMSW FY96**
 - **FY97 - TF XXI AWE (SIGINT/ES/EA)**
 - **FY97 - Add full MI sensor capabilities (UAV, SAR, FLIR, MTI)**
 - **FY97 - Airborne Planner Prototype**

TACTICAL INTEL DATA FUSION

TIMELINES

NEAR TERM FY97-FY99 (Continued)

- Advanced Sensor Placement (continued)
 - FY97 - Integrate Placement Tool with Overlay Reasoning Terrain Evaluation Module (TEM)
 - FY98 - Transition full MI capability to ASAS and PMSW
- Battle Damage Assessment (BDA)
 - FY97 - Complete prototype and demonstrate prototype at ASAS, BCBL(L) and XVIII ABN Corps and enhance Prototype

TACTICAL INTEL DATA FUSION TIMELINES

NEAR TERM FY97-FY99 (Continued)

- FY98 - Integrate prototype with Block II ASAS and Phoenix**
- SIGINT/MTI Multi-Intelligence fusion capability**
 - FY97-FY98 - Complete prototype and demonstrate prototype at ASAS and BCBL(H) and enhance prototype**
 - FY98 - Integrate with ASAS Block II and PMSW**

TACTICAL INTEL DATA FUSION

TIMELINES

LONG TERM FY99-FY02

- **Seamless multimedia database-to-database interface (DB2I)**
 - **FY99-01 - Transition to ASAS and PMSW**
- **Advance Sensor Placement**
 - **FY99-01 - Transition airborne planning to ASAS and PMSW**
- **SIGINT/MTI multi-intelligence fusion capability**

TACTICAL INTEL DATA FUSION

TIMELINES

LONG TERM FY99-FY02 (Continued)

- **Enhance Terrain Reasoning**
 - **FY99 - Develop an initial prototype**
 - **FY00-01 - Demonstrate and refine prototype**
 - **FY02 - Transition to ASAS and PMSW**

TACTICAL INTEL DATA FUSION

CONTRACT OPPORTUNITY

- **Title: Tactical Intelligence Data Fusion Techniques**
- **Objectives:**
 - Automate the intelligence generation process
 - Object, Situation, Threat and Process Refinement
 - Situational awareness
 - Efficient intelligence database management techniques
- **Type: CPFF contracts from BAA & SBIR solicitations**

TACTICAL INTEL DATA FUSION

CONTRACT OPPORTUNITY

(Continued)

- **Schedule: Award dates - FY97-98**
(BAA closes Jan 97 for FY97 award)
- **Estimated Value: \$1M to \$2M for FY97-98**
- **POC/Telephone No.: Dave Grubb, 540-349-7566**
- **Contracting Officer POC: Lynda Cooper**
(540) 349-5699

**IEWD
INFORMATION OPERATIONS
SPECIAL PROJECT OFFICE
(IO SPO)**

INFORMATION OPERATIONS SPECIAL PROJECT OFFICE

**The IO Special Project Office is assigned to the
CECOM RDEC, Intelligence and Electronic
Warfare Directorate, with broad responsibility
to work Information Operation initiatives across
all CECOM RDEC organizations**

INFORMATION OPERATIONS SPECIAL PROJECT OFFICE

PURPOSE

- **Meet the Army Challenge to dominate the Information Environment**
- **Coordinate and synchronize CECOM efforts to fully integrate defensive and offensive IO efforts and technology development**
- **Prepare, coordinate and gain approval and provide management oversight of new IO R&D programs such as Advanced Technology Demonstrations (ATDs)**

INFORMATION OPERATIONS SPECIAL PROJECT OFFICE

PURPOSE (continued)

- Support Battle Labs in the Development of IO experiments

TECHNOLOGY CHALLENGES IN SUPPORT OF INFORMATION OPERATIONS

Present Focus

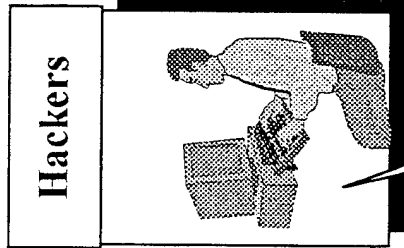
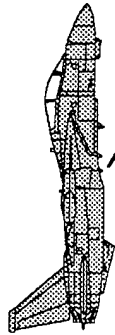
- C2 Protection Tools
 - Intrusion Detection Systems
 - Visualization Tools
- Planning Tools
- Risk Assessment
- Modeling and Simulation

Lines of
Communication
or target acquisition

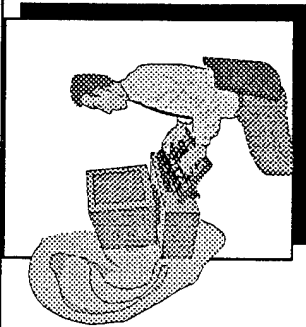
Communications Link

Possible security
breach or attack

Jamming

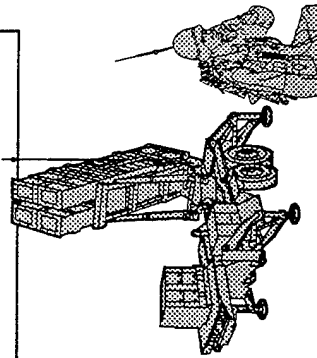


Hackers

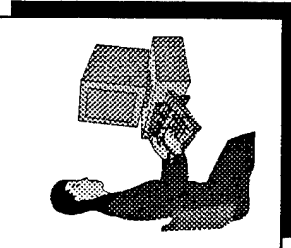


Enemy Intelligence

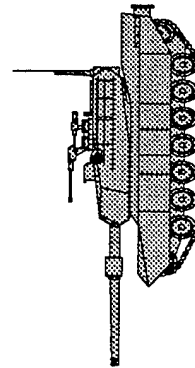
Friendly Forces



Command Center



Target



INFORMATION OPERATIONS

CURRENT REQUIREMENTS

- **Command and Control Protection Tools**
 - **Military's greater dependence on commercial products and standards, and greater reliance on the Global Information Infrastructure has introduced new threats and technical challenges to the Military Information Infrastructure (MII)**
 - **Many of the core problems and solutions are common to both the industry and military**

INFORMATION OPERATIONS

CURRENT REQUIREMENTS (Continued)

- **Automated intrusion detection and response capability**
- **Trusted operating systems, multilevel secure systems**
- **virus and malicious code detection**
- **Defensive Information Operations planning and decision tools**

INFORMATION OPERATIONS

CURRENT REQUIREMENTS (Continued)

- **Network and system risk and security analysis tools**
- **Damage assessment techniques and automated tools**
- **Secure firewalls**

INFORMATION OPERATIONS TIMELINES

NEAR TERM FY97-FY99

- **Development and Military Adaptation of C2 protect Software Tools for application in the Army Tactical Internet**
 - **Supports FY 98 start of Advanced Technology Demonstration on “C2 Attack and Protect” (CECOM Proposed Program)**
 - **Supports the Army C2 Protect Program for Risk Managment and C2 Protect “Common Tools” (ODISC4 Program)**

INFORMATION OPERATIONS

TIMELINES

NEAR TERM FY97-FY99 (Continued)

- **Modeling and Simulation software capability for the development of a C2 Attack and Protect Simulation Test environment**
 - **FY 98 start of longterm M&S development effort to support the military adaption and integration of protection capability into the Tactical Internet and Digital Systems**

INFORMATION OPERATIONS TIMELINES

LONG TERM FY00-FY02

- **Advanced C2 Protection Tools for tactical applications**
 - **Near real time intrusion detection**
 - **Automated response and damage assessment**
 - **Intelligent agents for detection of viruses and malicious code**
 - **User friendly operation and interface**

INFORMATION OPERATIONS

TIMELINES

LONG TERM FY00-FY02 (Continued)

- Scalable Modeling & Simulation test platform fully operator interactive providing the capability to evaluate the Tactical Internet in the presence of attack and protect strategies
 - Evaluate Protection products
 - Conduct wargames and rehearsals
 - Training applications

INFORMATION OPERATIONS TRANSITION

- **Transition of C2 Protection Tools to Army Tactical Internet and C2 systems starting in FY 00 through FY 02.**
- **Maximum use of commercial standards and specifications.**
- **Focus on software designs consistent with common hardware / software (CHS) and common operating environment (COE).**

CONCLUSION

- Worldwide battlefield dependence on information
- Technology goals meet emerging threats, IEW concepts and product improvements
- *Solicit active industry participation to meet technology challenges*

*“Owning the spectrum to
Win the Information War”*



NOTES

Firefinder Pre-Planned Product Improvement (P3I)



LTC Thomas M. Cole
Product Manager Firefinder

UNCLASSIFIED

22 Jul 96

POINT PAPER

SUBJECT: FIREFINDER Pre-planned Product Improvement (P3I)

OBJECTIVE: Upgrade the AN/TPQ-37 Antenna Transceiver Group to increase range and accuracy for detection of mortars, artillery, rockets, and missile in support of counterbattery and tactical missile defense operations.

FACTS:

- * FIREFINDER P3I is a performance enhancing program to insure the Army's long range counterfire capability is effective against the evolving indirect fire threat.

- * Will meet the demands of the digitized battlefield for timely and accurate targeting information.

- * Utilizes AN/TPQ-36(v)8 common hardware/software for the lightweight computer unit and radar processor.

- * Milestones listed below reflect planned schedule:

Draft RFP Release	3QFY97
RFP Release	4QFY97
Contract Award	2QFY98

- * Engineering Manufacturing Development contract will be a cost plus contract. Competitive best value source selection, period of performance 36 months to design, develop, and test 3 systems.

- * It is the government's intent to award a fixed price production contract to the EMD contractor to produce 72 systems given performance requirements are met in the EMD phase.

BRIEFER: LTC Thomas M. Cole, LTC, FA, PM FIREFINDER, SFAE-IEW-FF, X75618.



Purpose

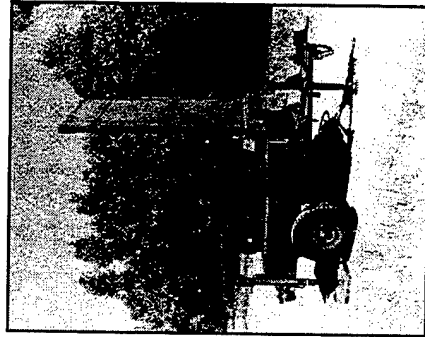


- Provide Information for Business Opportunity for the Firefinder P3I Program
- Will Discuss
 - What is Firefinder
 - Specifics of P3I

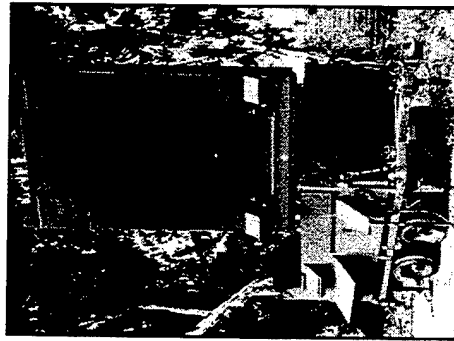
Current Capabilities



AN/TPQ-36



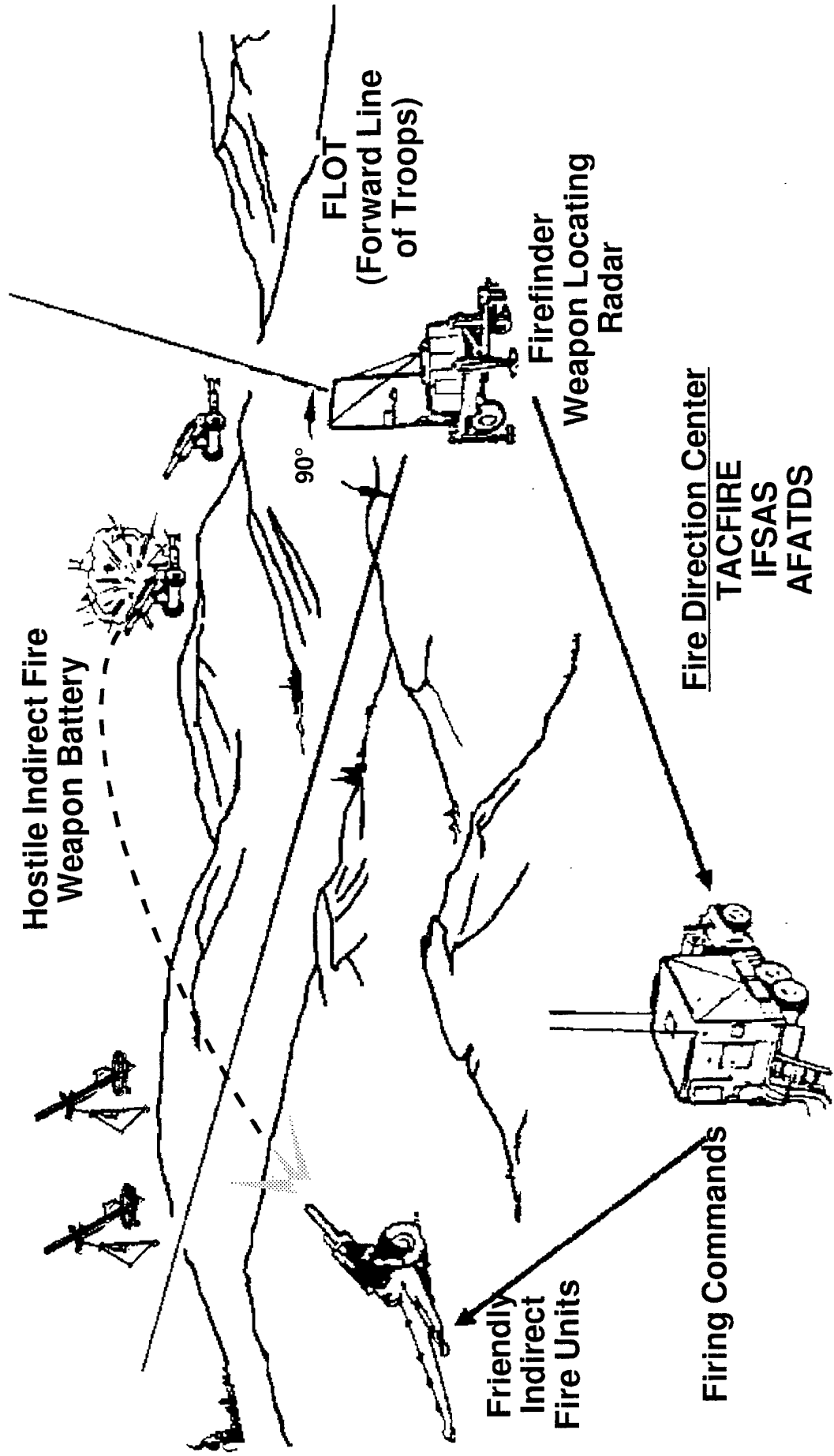
AN/TPQ-37



- Locate Mortars, Artillery and Rocket Firing Locations
- Single Round Detection Permits Rapid Fire-for-Effect
- Permits Counterfire Before Enemy Rounds Impact
- Locate 9 Firing Locations Simultaneously
- Automatic Interface to Command and Control Systems
- Accurate Target Locations Conserve Ammunition
- Adjust Friendly Fire to Maximize Effectiveness
- Predict Impact of Hostile Projectile
- Field Exercise Mode (FEM) for Training



Operational Scenario





Description



- **First Electronics Upgrade of AN/TPQ-37 in 20 Years**
- **Program Objective:**
 - **Increase Range and Accuracy for Detection of Mortars, Artillery, Rockets and Missiles**
- **Firefinder P3I Will Keep Pace With Improved Mobility, Threat Munitions and Range, Counterfire Capability and Data Dissemination (AFATDS)**
- **P3I will Meet the Demands of the Digitized Battlefield for Timely and Accurate Targeting Information Over Longer Ranges**
- **Utilize AN/TPQ-36(V)8 Common Hardware/Software**
 - **Lightweight Computer Unit (LCU)**
 - **Radar Processor**



Phased Improvement



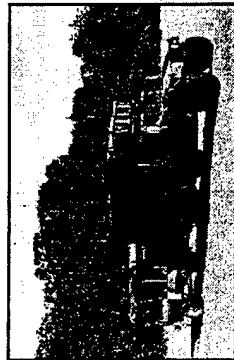
AN/TPQ-36(V)5

**AN/TPQ-36(V)7
HMMWV OCG**



- Mobility
- Reduced Crew Size

**AN/TPQ-36(V)8
Electronics Upgrade**



- Processing
- Reliability
- Increase Range

(V)8 Shelter

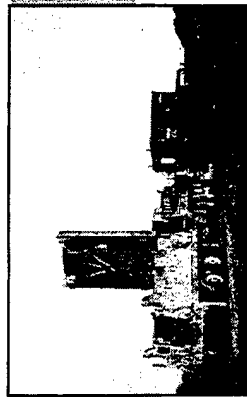
**HMMWV OCG
MAPS (Self Survey Capability)**

**AN/TPQ-37(V)8
Enhanced Firefinder**



AN/TPQ-37(V)5/6

Long Range
Software
Reduce False
Locations



- Transport (C-130/141 Kit)
- Mobility (MTSS, OCG on HMMWV)
- Self Survey (MAPS)
- Reliability (Cooler)

Firefinder P3I

- ATG
- Lightweight
- Survivable
- Reduced Crew Size

Position
Analysis
System



Requirements



Key Performance Parameters

- Increase Range
- Increase Accuracy

Best Value

- Target Classification
- Improve Transportability
- Improve Mobility
- Improve Survivability
- Reduce Crew Size
- Reduce Maintenance
- Increase Capability (TBM)
- Increase Throughput (50/min)
- Decrease False Alarm Rate



Tentative Acquisition Strategy



- **EMD Contract**
 - **Competitive Best Value Source Selection**
 - **Design/Develop/Test 3 Systems**
 - **Period of Performance 36 Months**
 - **Cost Plus Contract Type**
- **Production Contract**
 - **Award to EMD Contractor**
 - **Develop Trainer**
 - **Produce 69 Systems (Refurbish 3), Total 72 Systems**
 - **Period of Performance FY01-06**
 - **Fixed Price Contract**



Risk Reduction Efforts



Technologies

ARPA
- MMIC
- Solid State Array

BRWL ACTD
- Track While Scan
- Distribute TWTs
- Multi Beam Pulse Chasing
- Novel Algorithm Approaches

HTI
- AN/TPQ-36(V)8
Signal Processor

**P3I
Radar**

Doctrine

**D&SA Battle Lab
Connectivity
Exercises**

**JPSD
Long Range TMD
Capability Played
in Exercises**



Program Schedule



	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
RFI	<input type="checkbox"/>							
ORD Approval	△							
MS II		△						
Solicitation		△						
SSEB			<input type="checkbox"/>					
EMD Award			△					
EMD (Qty 3)								
MS III						△		
Production								
IOC								△



Conclusion



- Firefinder P3I is a Business Opportunity for the Radar Community
- Will Incorporate Applicable Acquisition Reform Concepts
- PM will Dialog With Industry as Program is Formed



Contract Opportunity



Title: Firefinder P3I Program

Objective: Improved Antenna Transceiver Group

Proposed Contract Type: EMD - Cost Plus

Key Milestones: MS II - 3QFY97
RFP - 4QFY97
CA - 2QFY98

Estimated Value: EMD 80-90M
Production 400-500M

Point of Contact: Stan Dobies
Telephone: 908-427-5224



NOTES



Countermine Efforts

James Campbell

US Army Communications-Electronics Command
Research, Development and Engineering Center
Night Vision and Electronic Sensors Directorate

Unclassified

POINT PAPER

SUBJECT: Lightweight, Airborne, Multispectral, Countermine Detection System

- **OBJECTIVE:** Develop an integrated system for autonomous detection and destruction of mines at maneuver speeds and standoff ranges. This includes anti-tank mines, anti-personnel mines and unexploded ordnance with the goal of reducing false alarm rates to an acceptable level. Explosive neutralization technologies will be tested and evaluated leading to the complete design of an explosive neutralizer. Sensor fusion technology will be the basis for the detection scheme with integration onto a surrogate platform for the Mine Hunter Killer demonstration.

FACTS:

Contract Opportunity - Multi-Function Sensor Suite

- Type of Contract - Cost plus incentive fees
- Schedule - Mine detection and neutralization BAA 4QFY96 with follow-on sensor fusion contract opportunities
- Efforts - Develop standoff detection and neutralization of land mines at maneuver speeds

BRIEFER: Mr. James Campbell, Project Engineer, US Army Communications-Electronics Command Research, Development and Engineering Center, Night Vision and Electronic Sensors Directorate, AMSEL-RD-NV-CD, (703) 704-2115

AMSEI-RD-NV

POINT PAPER

SUBJECT: Mine Hunter Killer

- **OBJECTIVE:** Develop an integrated system for autonomous detection and destruction of mines at maneuver speeds and standoff ranges. This includes anti-tank mines, anti-personnel mines and unexploded ordnance with the goal of reducing false alarm rates to an acceptable level. Explosive neutralization technologies will be tested and evaluated leading to the complete design of an explosive neutralizer. Sensor fusion technology will be the basis for the detection scheme with integration onto a surrogate platform for the Mine Hunter Killer demonstration.

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Countermine Efforts

1 Lightweight, Airborne, Multispectral
Countermine Detection System

2 Mine Hunter / Killer

Lightweight, Airborne Multi-Spectral Countermine Detection System

Definition

On-the-move limited area (point) detection, route reconnaissance and identification of nuisance mines supporting the lightweight future tactical UAV (Unmanned Aerial Vehicle)

Lightweight, Airborne Multi-Spectral Countermine Detection System

Status

- New start FY98
- Captures Airborne Standoff Minefield Detection Program technology investments
- Sensor design requirements being defined

Lightweight, Airborne Multi-Spectral Countermine Detection System

Objective

Develop a lightweight, stabilized, airborne standoff mine and mine field detection sensor capable of being mounted on a tactical UAV

Lightweight, Airborne Multi-Spectral Countermine Detection System

Operational Requirement

Provide for limited area (point)
detection, limited corridor route
reconnaissance and detection of
nuisance mines along roads

Lightweight, Airborne Multi-Spectral Countermine Detection System

Payoffs

Lightweight airborne mine and
mine field detection capability

- High probability of detection and location
- Low false alarm rates
- Low weight and cost ratio

Lightweight, Airborne Multi-Spectral Countermine Detection System

Milestones

- FY98: Explore innovative concept and technology to support a lightweight airborne standoff mine and mine field detection capability
- FY99: Initiate critical component development
 - FY01: Complete development of sensors and mine detection algorithm for integration on a tactical UAV

Lightweight, Airborne Multi-Spectral Countermine Detection System

Exit Criteria (Day and Night)

	Required	Desired
Buried Patterned	80%	100%
Surface Patterned	90%	100%
Unpatterned Scatterable	80%	100%
Buried Nuisance Mines on Unpaved Road	70%	100%
Weight/Cost	<35lb/\$1.0M	<35lb/\$.250M

Lightweight, Airborne Multi-Spectral Countermine Detection System

Contract Opportunities

Objective: Develop a lightweight sensor and mine detection algorithm

Proposed Contract Type: Cost plus incentive fee

Key Milestones: BAA 1QFY98 for exploring concepts and initiating follow-on sensor algorithm and component development

FY01 complete sensor and algorithm development

Estimated Value: \$7-15M (Including follow-on)

Tech POC: Bob Barnard (703)704-1066

Contract POC: Debbie Gilligan (908) 532-3508

Mine Hunter Killer

Definition

Provide the Army a capability for the standoff detection and neutralization of landmines from a vehicular platform moving at tactical speeds

Mine Hunter Killer

Objective

Develop an integrated system concept for autonomous forward-looking land mine detection and neutralization mounted on a tactical UGV

Mine Hunter Killer

Status

- Started in FY96
- Captures Vehicle Mounted Mine Detector technology investments
- Modeling and analysis on-going
- Detection and Neutralization requirements being defined

Mine Hunter Killer

Operational Requirements

Provide for on-the-move forward-looking detection and neutralization of mines at a safe standoff distance at maneuver speeds

Mine Hunter Killer

Payoffs

- On-the-move, forward-looking mine detection
- On-the-move mine neutralization
- High probability of mine detection and identification
- Lower false alarm rate
- Greater speeds

Mine Hunter Killer

Milestones

- FY96: Demonstrate an infrared detection scheme on a combat vehicle
- FY97: Explore explosive neutralization technologies
- FY98: Complete design of explosive neutralizer
- FY99: Complete enhancements to forward-looking detection sensors
- FY00: Integrate with a surrogate platform and demonstrate ability to both detect and kill mines at a standoff range

Mine Hunter Killer

Exit Criteria

Operational Capability	Baseline VMMD*	ATD Minimum	ATD Goals
Mine Detection(Types)	All	All	All
Breaching Speeds	3 MPH	5 MPH	20 MPH
Neutralization Range	None	50 Meters	75 Meters
Probability of Detection	85%	90%	98%
False Alarm Rate (per meter forward advance)	.25	.06	.04

* Vehicular Mounted Mine Detector

Mine Hunter Killer

Contract Opportunity

Title: Mine Hunter Killer

Objective: Develop forward-looking detection, mine detection algorithm neutralizer device for land mines at maneuver speeds

Proposed Contract Type: Cost plus incentive fees

Key Milestones: Neutralization BAA 4QFY96

Estimated Value: \$6 - \$15M (Including follow-on)

Tech POC: Ricky Stanfield (703)704-2452

Contract POC: Debbie Gilligan (908) 532-3508



NOTES

Multi-Function Sensor Suite (MFSS)

Steve Holt
Project Engineer
Ground Vehicle Branch

**US Army Communications-Electronics
Command, Research, Development and
Engineering Center, Night Vision and
Electronic Sensors Directorate**

UNCLASSIFIED

POINT PAPER

SUBJECT: Multi-Function Sensor Suite

OBJECTIVE: Demonstrate a modular, reconfigurable Multi-Function Staring Sensor Suite (MFS3) that integrates multiple advanced sensor components including staring infrared arrays, multi-function laser, low cost millimeter wave radar, and acoustic arrays. The MFS3 will provide ground vehicles and amphibious assault vehicles with a compact, affordable sensor suite for long range non-cooperative target identification, mortar/sniper fire location, and air defense against low signature targets. Additional key features include:

- Reconfigurable sensor backplane that fully integrates aperture, power, and signal processing requirements for multiple platform applications
- Medium format staring array capable of being reconfigured for either visible through 5 micron or 8-12 micron operation.
- Spectral selectivity and hyperspectral imaging capabilities will be accomplished through bandpass filters inserted into the optical train.

FACTS:

Contract Opportunity - Multi-Function Sensor Suite

- Type of Contract - Cost plus incentive fees
- Schedule - Award 2QFY98
- Efforts - Develop fully integrated multiband target acquisition system

BRIEFER: Mr. Steve Holt, Project Engineer, US Army Communications-Electronics Command Research, Development and Engineering Center, Night Vision and Electronic Sensors Directorate, AMSEL-RD-NV-SS-GV, (703) 704-1233

MFSS

Definition

Multifunction Sensor Suite:

An integrated target acquisition sensor package to be used on the Future Scout, Cavalry Vehicle, the Future Infantry Vehicle and the Future Combat System.

Components:

Common aperture and processor, mid and long wave infrared imagers, acoustic cues, multifunction laser (MFLS) and aided target recognition (ATR) software algorithms

MFSS

STATUS

- Approved Science and Technology Objective (STO) for Proposed FY98 Advanced Technology Demonstration (ATD)
- Incorporated in Integrated Concept Teams (ICT) for:
 - Future Scout, Cavalry Vehicle
 - Future Infantry Vehicle
- Uses maturing MFLS and ATR software and incorporates new staring sensors.

MFSS

OBJECTIVES

- Design and develop highly integrated sensor suite capable of multi-wavelength imaging
- Build one scanning Forward Looking Infrared (FLIR) based sensor suite and two staring FLIR based sensor suites
- Support vehicle integration and demonstrate systems mounted in Future Scout, Cavalry Vehicle

MFSS

REQUIREMENTS

- Staring target acquisition range performance equal to scanning FLIR performance
- Fleeting and low-observable target acquisition performance unavailable in scanning FLIR
- Target identification (ID) at maximum weapon range
- Real time panoramic imagery











MFSS

PAYOFFS

- Compact multi-sensor suite
 - Versatility
 - Modularity
 - Ease of integration
- Superior Performance
 - Wavelength agility
 - Low observable targets
- Panoramic view

MFSS

MILESTONES

MILESTONES	FY97	FY98	FY99	FY00	FY01
Technical Risk Reduction					
Modular Backplane					
Scanning FLIR					
Staring FLIR					
Laser/Acoustics					
Sensor Integration					
Demonstration					

Funding	18%	28%	28%	26%
Total Est. value	\$20-25M			

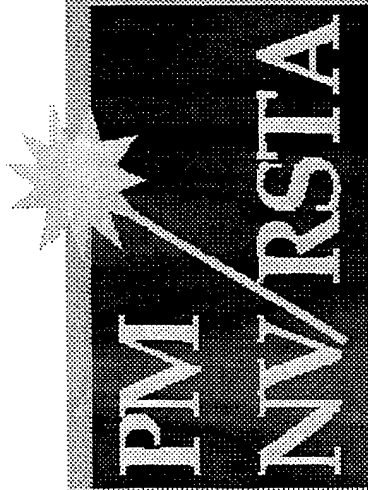
MFSS

CONTRACT OPPORTUNITY

- **TITLE:** Multi Function Sensor Suite
- **OBJECTIVE:** Multiband target acquisition system
- **PROPOSED CONTRACT TYPE:** Cost plus award fee
- **KEY MILESTONES:**
 - Award 2QFY98
 - Integration 2QFY00
 - Demonstration 2QFY01
- **ESTIMATED VALUE:** \$20-25 M
- **TECH POC/TEL:** Steve Holt / (703) 704-1233
- **CONTRACT POC:** Debbie Gilligan/(908) 3508

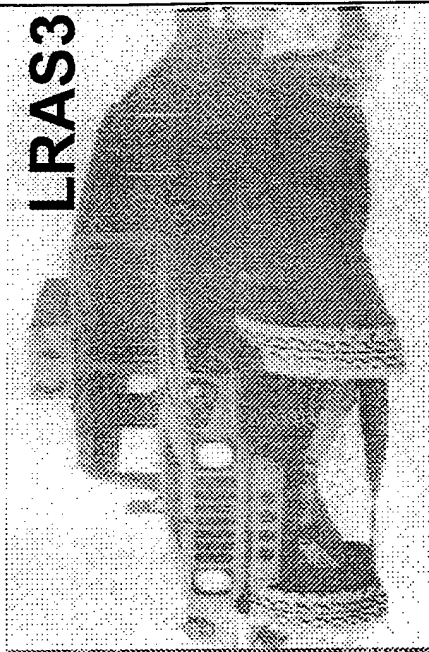


NOTES



TWS

LRAS3



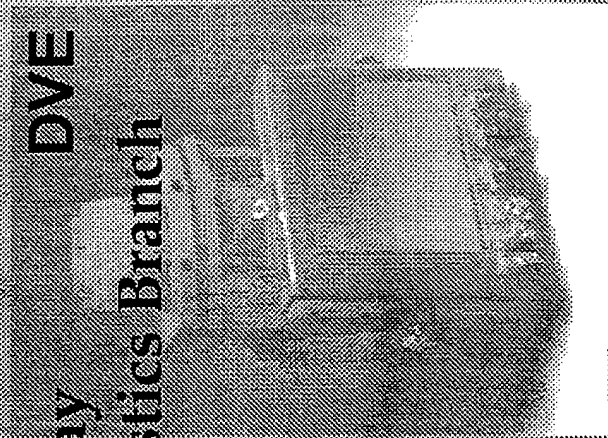
Night Vision & Electronic Sensor Systems

TLOS

Presented by: Brian Murray

Chief, Logistics Branch

DVE



UNCLASSIFIED

SFAE-IEW-NV

Point Paper

SUBJECT: Long Range Advanced Scout Surveillance System

OBJECTIVE: Long Range Advanced Scout Surveillance System (LRAS3). The Mission of the LRAS3 is to conduct long range reconnaissance of terrain and long range surveillance of objects of tactical interest during periods of limited visibility. The LRAS3 will utilize an advanced Forward Looking Infrared (FLIR) night vision sight and integrated day camera to provide passive, day/night imagery, that will enable the scout observer to passively search, detect, recognize and identify tactical objects at extended ranges. The LRAS3 will also be capable of collecting accurate far target location information by ranging to a target and by obtaining the target compass heading with respect to its own position using global positioning system (GPS). It will then have the capability to interface with a global positioning system (GPS). The LRAS3 is expected to be a fully integrated suite of sensors. It must be capable of performing these functions while either vehicle (initial requirement for High Mobility Multi-purpose Wheeled Vehicle (HMMWV)) or tripod mounted.

FACTS:

- Contract Opportunity: Provide rapid prototype for proof of principal use
- Type of Contract: Competitive
- Schedule: RFP release in late FY 96
- Efforts will involve tasks related to:
 - FLIR and other Sensor Technologies
 - System Design and Engineering
 - Prototype Development
 - Packaging for HMMWV and Tripod mounting

BRIEFER: Brian Murray, Chief, Logistics Branch, Night Vision/Reconnaissance, Surveillance & Target Acquisition, SAFE-IEW-NV, 703-704-3489

ACTION OFFICER:
Darryl Phillips
LRAS3 Project Leader
703-704-3469

SFAE-IEW-NV

POINT PAPER

SUBJECT: Thermal Omnibus

OBJECTIVE: The intent of PM NV/RSTA is to solicit for full production of the Driver's Vision Enhancer (DVE) and Thermal Weapon Sight (TWS) under a multi-year Thermal Omnibus procurement with anticipated award in 2nd quarter, FY97. Thermal Omnibus is a single procurement action that permits procurement of more than one end item (e.g., series of image intensifier omnibus procurements in which ground and air goggles, sights, and spares were all bought under one procurement action.). The DVE is a thermal imaging device designed to provide GO versus NO GO mobility for combat and tactical vehicles in day, night and degraded battlefield conditions. TWS is a family of weapon mounted thermal sights used to engage targets through adverse weather and battlefield obscurants during daylight and total darkness. This omnibus procurement will seek to leverage economies of scale and common processes through the use of performance specifications and acquisition reform (i.e. Horizontal Technology Integration (HTI), Horizontal Contracting Integration (HCI) and Horizontal Production Integration (HPI)).

FACTS:

- Full and open competition (foreign restrictions may apply)
- Performance specification and best value selection
- Sample hardware subjected to Government laboratory and user field test
- Potential for one or more award
- Draft RFP OCT 96, Pre-solicitation conference NOV 96, Final RFP NOV 96
- Proposed contract: fixed price

BRIEFER: Mr. Brian Murray, Chief, Logistics Branch, Project Manager, Night Vision/Reconnaissance, Surveillance & Target Acquisition, SFAE-IEW-NV, (703) 704-3498.

ACTION OFFICER:
Alex Matejka
Contracting Officer
(908) 532-5207

SFAE-IEW-NV

Point Paper

SUBJECT: Target Location and Observation System

OBJECTIVE: TLOS is a man portable, optics location system. It is used by the individual infantry soldier to find threat targeting Optics and Electro-Optics (OEO). This includes television cameras, image intensifiers and Direct View Optics (DVOs). TLOS will also be used for night illumination, marking and signaling. The Army approved Basis of Issue (BOI) is 3 per infantry platoon and 1 per scout vehicles.

FACTS:

- Production BAA studies for advanced systems.
- Type of Contract: FFP, FFP, Dev (TBD)
- Schedule: BAA out now thru 28 June, Next Prod 2QFY97
- Efforts will involve tasks related to:
 - Weight Reduction
 - Range Improvement
 - Digital Battlefield Compatability
 - Compass/VAM
 - GPS

BRIEFER: Brian Murray, Chief, Logistics Branch, Night Vision/Reconnaissance, Surveillance & Target Acquisition, SAFE-IEW-NV, 703-704-3498

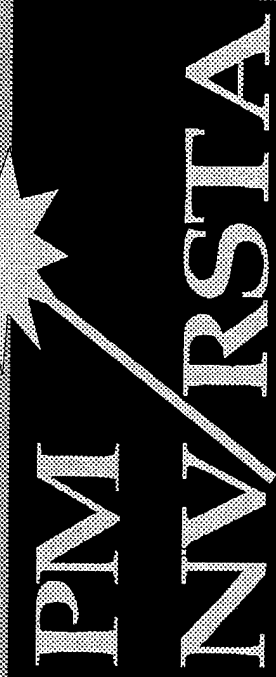
ACTION OFFICER:
Kevin Hunt
TLOS Project Leader
703-704-1151



AGENDA

- LRAS3
- Thermal OMNIBUS
- TLOS

LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM



PM / NV / RSTA

Long Range Advanced Scout Surveillance System (LRAS3)

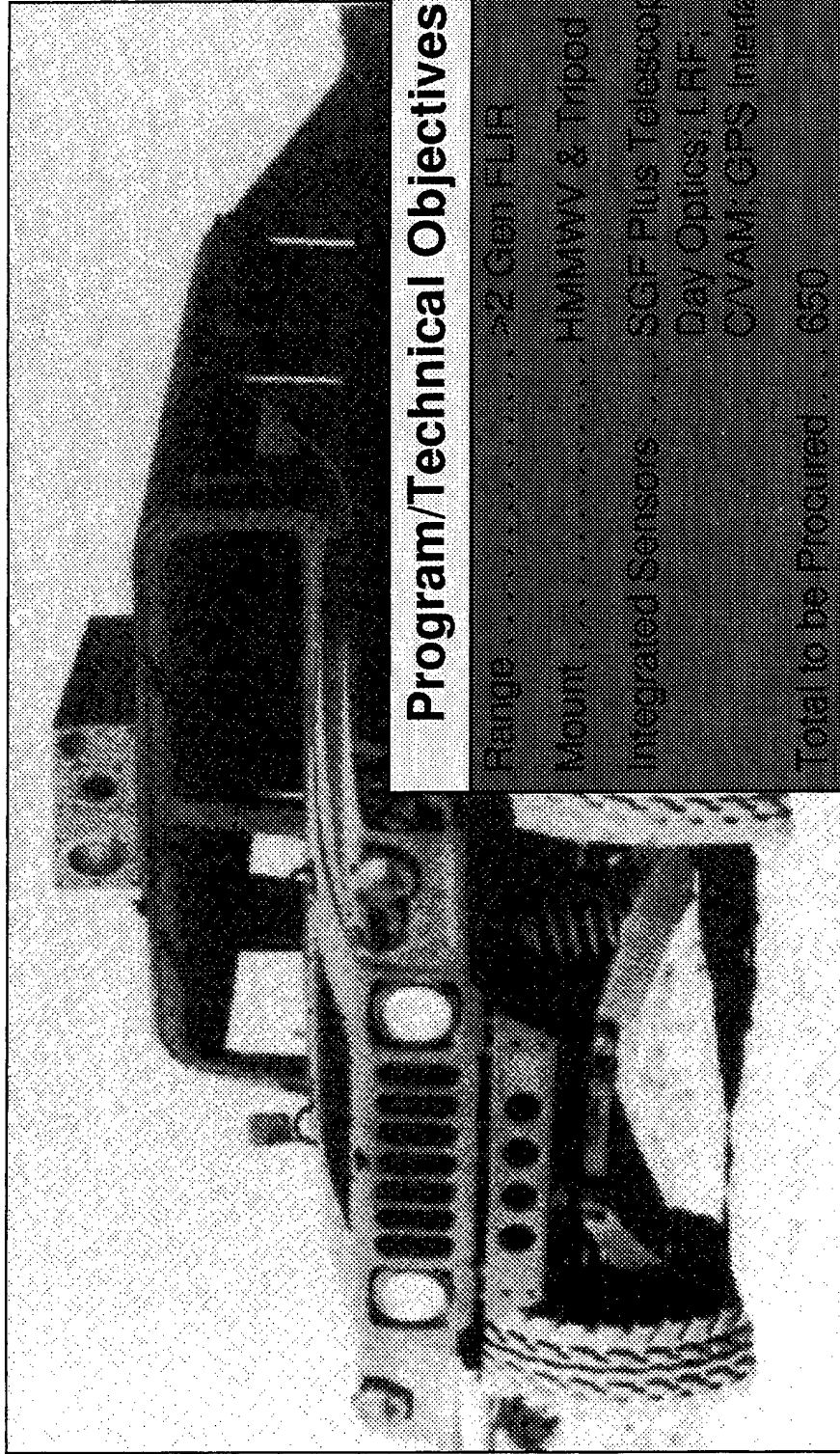
**An Integrated Long Range Reconnaissance,
Surveillance and Target Acquisition Sensor
System for Maneuver Battalion Scouts to Use
on a High Mobility Multipurpose Wheeled
Vehicle (HMMWV) or Manportable
Configurations.**

Long Range Advanced Scout Surveillance System (LRAS3)

OPERATIONAL CONCEPT

**The System Will Provide Real-Time Imagery
for the Scout to Quickly Detect, Recognize,
and Report Targets of Military Interest While
Outside Threat Acquisition and Engagement
Ranges.**

Long Range Advanced Scout Surveillance System (LRAS3)



Program/Technical Objectives	
Range	>2 Gen FLIR
Mount	HMMWV & Tripod
Integrated Sensors	SGF Plus Telescope, Day Optics, LRF, CIVAM, GPS Interface
Total to be Procured	650

Long Range Advanced Scout Surveillance System (LRAS3)

STATUS

- **Currently Maneuver Battalion Scouts
Operate Within Threat Acquisition
Engagement Ranges**
- **New Generation FLIRS Provide Greater
Ranges**

Long Range Advanced Scout Surveillance System (LRAS3)

SCOPE OF EFFORT

- **One Long Range Advanced Scout Surveillance Per Scout High Mobility Multipurpose Wheeled Vehicle (HMMWV), Scout Platoon and Cavalry Regiment**
- **Give Scouts a Stand-off Range They Have Never Had Before**
- **Improve Target Detection, Identification and Hand-Off**

Long Range Advanced Scout Surveillance System (LRAS3)

SCOPE OF EFFORT Cont'd

- **First Recon/Surveillance System Developed Specifically for Scout Mission**
- **Allows Scouts to Conduct Reconnaissance Missions While Remaining Outside Threat Acquisition and Engagement Ranges**

Long Range Advanced Scout Surveillance System (LRAS3)

MILESTONES

- **2QFY94 Operational Requirement Document
 (ORD)**
- **FY 96 Head Start Effort Tradeoff Studies by
 Industry Input to E&MD Procurement
 Package**
- **4QFY96 Milestone II Decision**

Long Range Advanced Scout Surveillance System (LRAS3)

MILESTONES Cont'd

• 2QFY97

**Engineering and
Manufacturing
Development (EMD)
Award * Includes Initial
Production Options**

• 3QFY98 - 2QFY99

**Development
Test/Operational Test
(DT/OT)**

Long Range Advanced Scout Surveillance System (LRAS3)

CONTRACT OPPORTUNITY

TITLE:

**Long Range Advanced Scout
Surveillance System**

OBJECTIVE:

EMD

CONTRACT TYPE:

Cost Plus

KEY MILESTONES:

RFP 1QFY97

ESTIMATED VALUE:

>\$10M

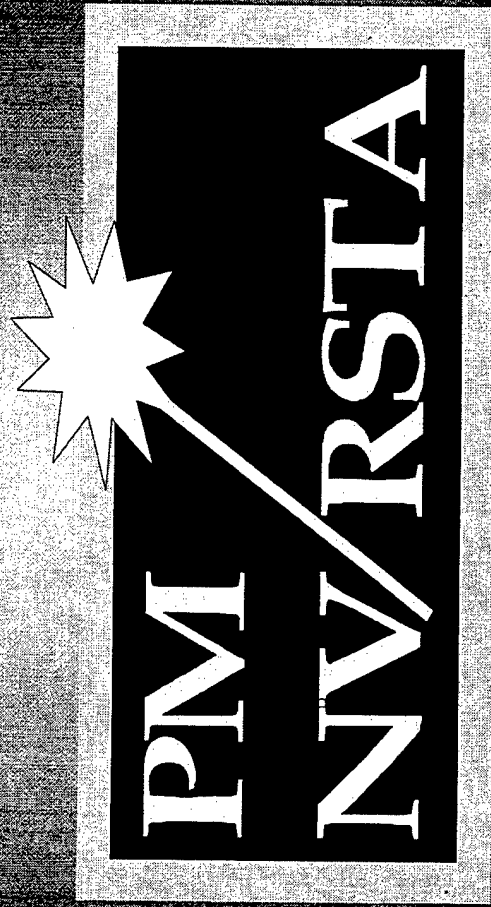
POC NAME/TELE:

Darryl Phillips (703) 704-3049

CONTRACTING OFFICER:

Stephanie Allen (908) 532-1093

Driver's Vision Enhancer (DVE) & Thermal Weapon Sight (TWS)

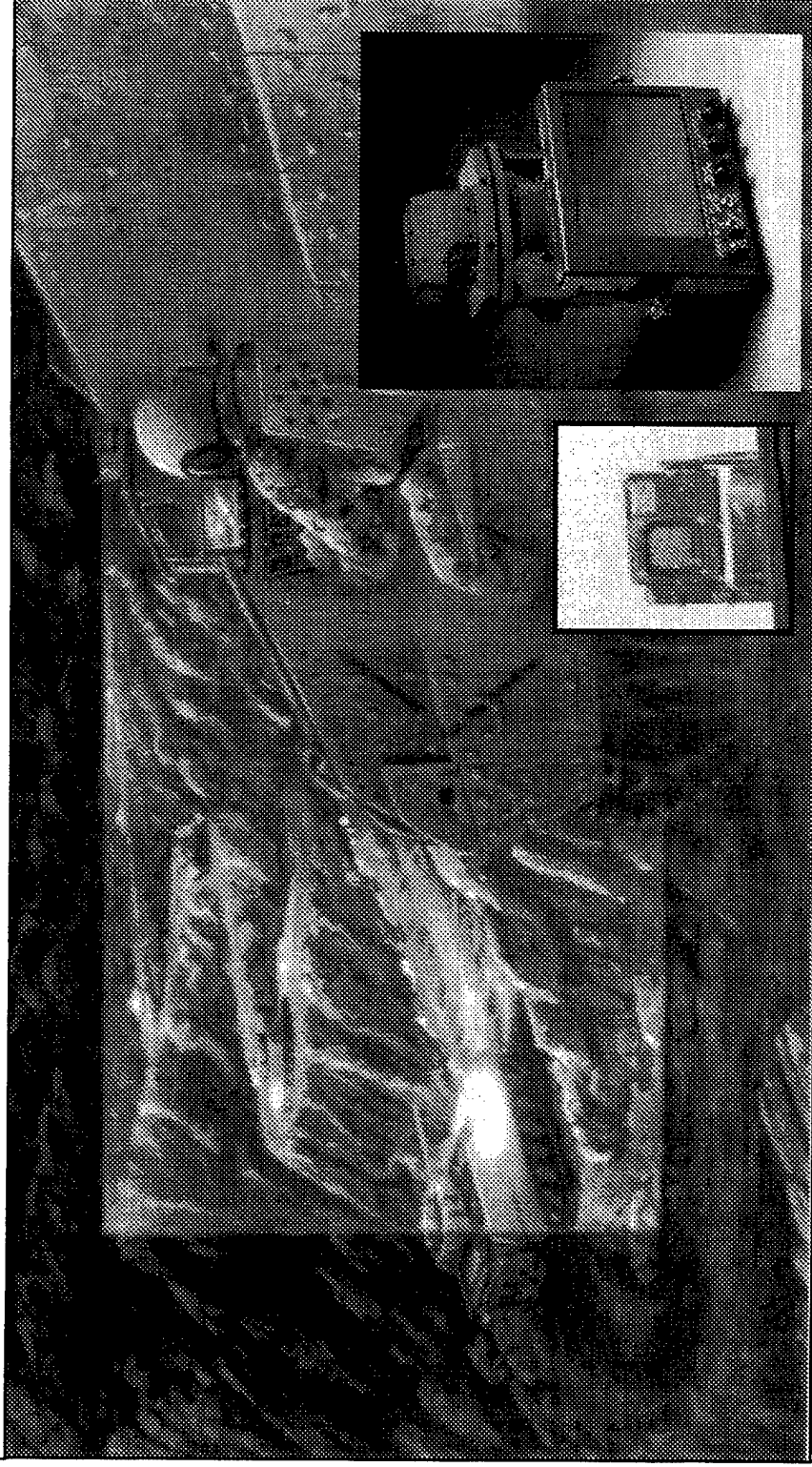




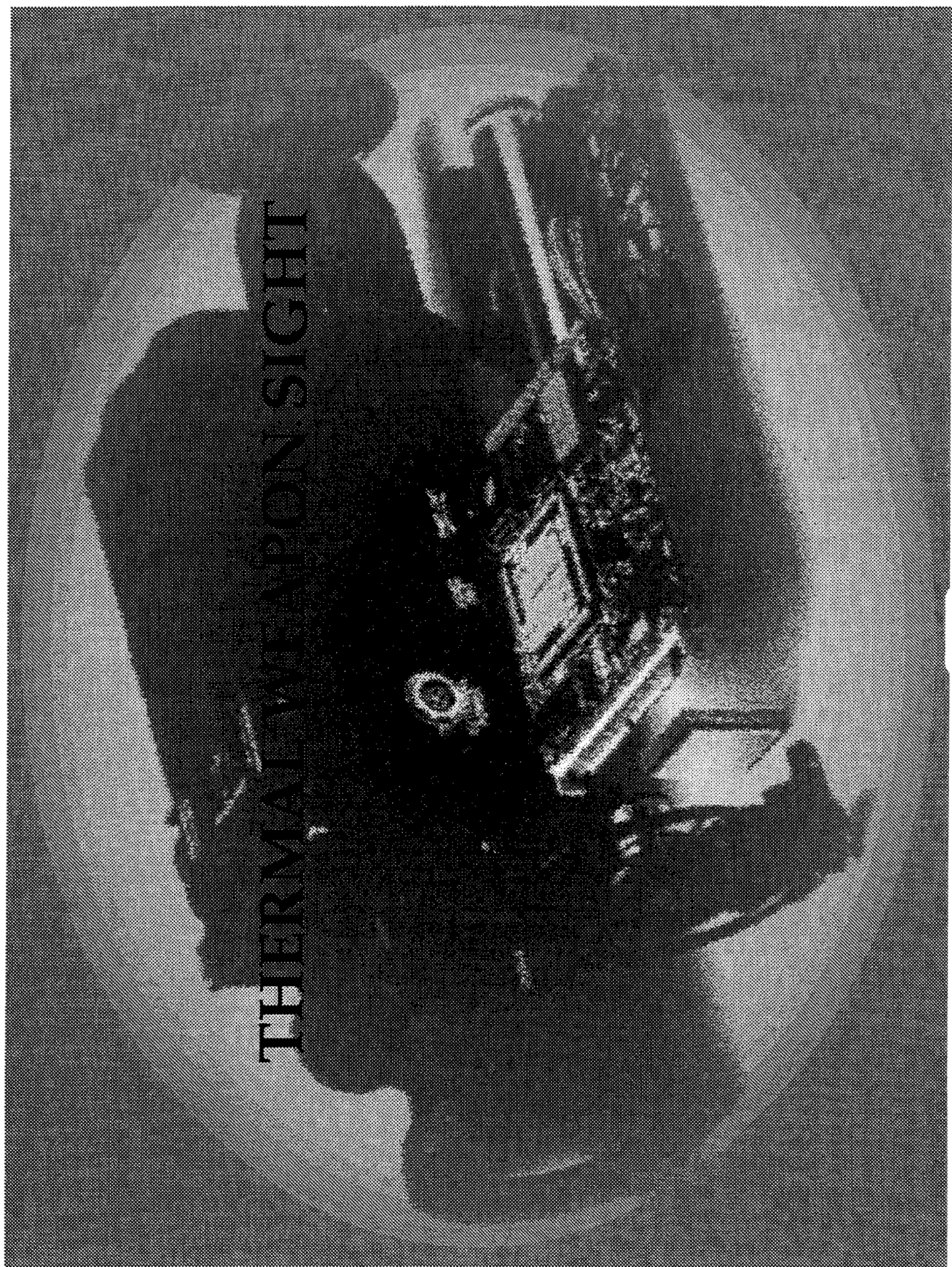
Driver's Vision Enhancer (DVE)

Driver's Vision Enhancer (DVE) Operational Concept

AN/VAS-5 Driver's Vision Enhancer Provides Driving Capability for Combat and Tactical Wheeled Vehicles During Daylight, Darkness and in Degraded Battlefield Conditions



THERMAL WEAPON SIGHT



Thermal Weapon Sight (TWS) Operational Concept

AN/PAS-13 Thermal Weapon Sight Provides Surveillance and Fire Control Capability for Individual and Crew Served Weapons During Daylight, Darkness and in Degraded Battlefield Conditions



THERMAL OMNIBUS

DVE & TWS

STATUS

- **DVE & TWS Now in Limited Procurement for Test, Training and to Support First Unit Equipped Fielding Requirements**
- **Thermal OMNIBUS (a Single Procurement Action) for Full Production of DVE & TWS**
 - **Economy of Scale**
 - **Acquisition Reform Techniques**
 - **Industry Common Processes**
 - **Promotes Competition**

THERMAL OMNIBUS

DVE & TWS

STATUS Cont'd

- **Thermal OMNIBUS APBI Held 23 May 1996**
 - **Intended to Elicit Industry Comments/Input to Emerging Strategy, Performance Specs, Evaluation Approach**

THERMAL OMNIBUS DVE & TWS

SCOPE OF EFFORT

- Full & Open (Foreign Restrictions May Apply)
- Multi-Year (3 - 5 Yr) With Options for TWS and DVE
- Performance Specifications
- Best Value Selection
- Potential for One or More Award
- Sample Hardware
 - Submit Light, Medium, Heavy TWS; BFVS DVE As Appropriate
 - Multiple Units
 - Subjected to Government Lab & User Field Test
 - Will Be Returned

THERMAL OMNIBUS DVE & TWS

PROGRAM REQUIREMENTS

**ESTIMATED ANNUAL QUANTITY
(FOR PLANNING/DISCUSSION PURPOSES ONLY)**

<u>FY</u>	<u>DVE</u>	<u>TWS</u>
97	400	1100
98	400	1500
99	1000	1300
00	1000	1800
01	1000	1800

(approximate total all configurations)

THERMAL OMNIBUS DVE & TWS

CONTRACT OPPORTUNITY

TITLE: Thermal OMNIBUS (DVE & TWS)

OBJECTIVE: Multi-Year Production Procurement

CONTRACT TYPE: Fixed Price

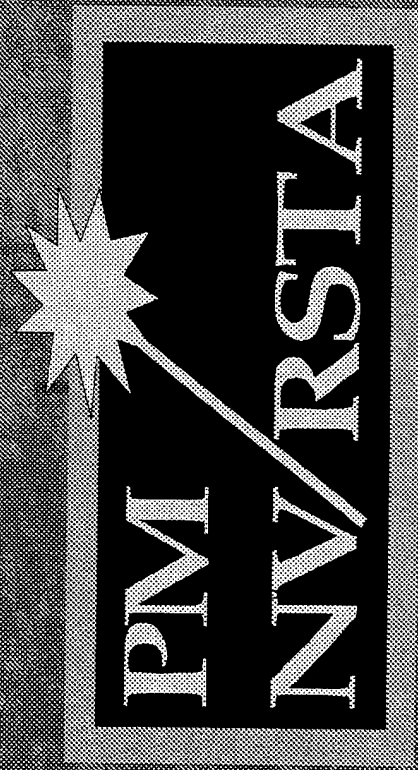
KEY MILESTONES: DRAFT RFP Oct 96;
Pre-Solicitation Conf. Nov 96;
FINAL RFP Nov 96;
PROD. Award Mar / Apr - 97

EST. VALUE: > \$100M

POC NAME/TELE: Don Ferrett (DVE) William Smith (TWS)
(703) 704-3467 (703) 704-3478

CONTRACTING OFFICER: Mr. Alex Matejka (908) 532-5207

Target Location and Observation System (TLOS)



Target Location and Observation System (TLOS)

**The TLOS Is a Lightweight, Image Intensified
Day/Night Sight Which Employs a Near Infrared
Low Energy Laser to Actively Acquire Direct
View and Electro-Optic Targets.**

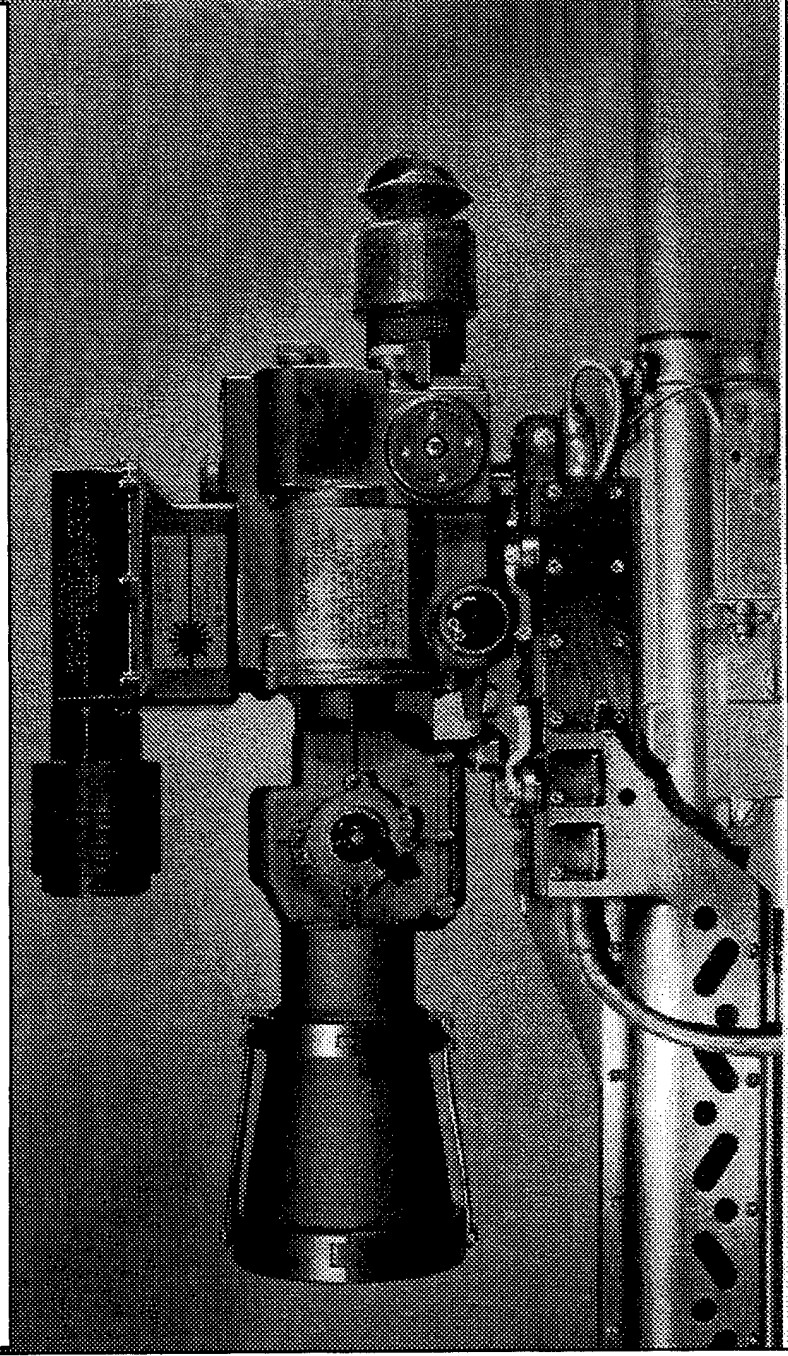
Target Location and Observation System (TLOS)

SYSTEM COMPONENTS

- **Day/Night Sight**
- **System/Electronics Pack**
- **Interface Cable**
- **Weapon Adapter**

Target Location and Observation System (TLOS) Operating Concept

**The Target Location and Observation System
Provides Capability to Detect Optical/Electro-Optical
Threats and Can Be Used As a Covert Illuminator
and Fire Direction Pointer**



Target Location and Observation System (TLOS)

STATUS

- **Currently Developed Under LCMS Operational Requirements Document (ORD) Approved 4QFY91.**
- **NVESD, PM NV/RSTA Demonstrated:**
 - **Acquisition Ranges in Excess of Requirements**
 - **High Performance Passive Acquisition**
 - **High Reliability**

Target Location and Observation System (TLOS)

STATUS Cont'd

- **Current System**
 - **Production Contract in Place for 249 Units**
 - **First Article Testing Nov 96 - Feb 97**
 - **Initial Deliveries June 97**
- **Objective System**
 - **Broad Agency Announcement (BAA) out 13 May 96 for Trade-off Study**
 - **Proposals Received 27 Jun 96**
 - **Award up to 4 Studies Aug 96**

Target Location and Observation System (TLOS)

SCOPE OF EFFORT

- **Active Acquisition of Direct View and Electro-Optics**
- **Passive Acquisition Day and Night**
- **Mounted on M16A1/A2 and M4 Weapons or Handheld**

Target Location and Observation System (TLOS)

SCOPE OF EFFORT Cont'd

- **Non-Developmental Integration of GPS, Compass, Ranging Technologies**
- **Standard Govt. Batteries, Also Capable of Commercial Battery Use**
- **Multiple Objective to Reduce Weight/Size and Optimize Application**

Target Location and Observation System (TLOS)

PROGRAM REQUIREMENTS

- **Current System:**
 - **Range (Active Acquisition)**
 - ... 2000 M Day
 - ... 3000 M Night
 - **Manportable**
 - ... Total Weight 10.6 lbs
 - ... In-Hand Weight 7.1 lbs
 - **BA-5590 Battery (SINGARS)**

Target Location and Observation System (TLOS)

PROGRAM REQUIREMENTS Cont'd

- **P³I Systems**
 - **Weight Not to Exceed 5 lbs**
 - **Active Acquisition to 5 km**
 - **Integrated GPS, Rangefinder, Compass
Determine Target Coordinates**
 - **Digital Information Transfer**
 - **Laser Pointer**

Target Location and Observation System (TLOS)

MILESTONES

FY96 & BEYOND

- | | |
|-------------------------------|--------|
| • BAA Contract Award | 4QFY96 |
| • LRIP Contract | 3QFY97 |
| • Follow-on Operational Tests | 1QFY99 |

Target Location and Observation System (TLOS)

CONTRACT OPPORTUNITY

TITLE:

**Target Location & Observation
System, P³I**

OBJECTIVE:

**Integrate Digitization Technologies
Into Current TLOS**

CONTRACT TYPE:

Fixed Price

KEY MILESTONES:

FY97 LRIP Award

ESTIMATED VALUE:

**\$13.1(M) RDTE, \$92.0 (M)
Production**

POC NAME/TELE:

Kevin Hunt, (703) 704-1151

CONTRACTING OFFICER:

Stephanie Allen (908) 532-1093



NOTES

SESSION V

COMMAND, CONTROL AND COMMUNICATIONS TECHNOLOGIES AND MODERNIZATION

MODERATOR

MR. ROBERT R. LEHNES

DEPUTY PROGRAM
EXECUTIVE OFFICER
COMMUNICATIONS SYSTEMS

**COMMAND, CONTROL AND
COMMUNICATIONS TECHNOLOGIES
AND MODERNIZATION**

MR. ROBERT LEHNES

**DEPUTY PROGRAM EXECUTIVE OFFICER, COMMUNICATIONS SYSTEMS
PROGRAM EXECUTIVE OFFICE, COMMAND, CONTROL AND
COMMUNICATIONS SYSTEMS**

PROGRAM EXECUTIVE OFFICE COMMAND, CONTROL AND COMMUNICATIONS

PEO C3S - MG WILLIAM CAMPBELL

STAFF

HTI	FIO	READINESS
OPERATIONS	BUS MGT	HUMAN RES

PROGRAM MANAGERS

PM SATCOM	PM APPLIQUE	PM INTEL FUSION
PM MILSTAR	PM CHS	PM OPTADS
PM GPS	PM FATDS	PM ADCCS
PM TRCS	PMSTCCS	PM CN/CMS
PM JTACS	PD CTIS	PD IMETS

PM PROGRAMS AND FUTURE TECHNOLOGIES
BUSINESS OPPORTUNITIES

- RDT&E/ACQUISITION IN SUPPORT OF THE WARFIGHTER
INFORMATION NETWORK - COL KENNETH THOMAS
- IMPROVED SPECTRUM EFFICIENCY MODELING AND
SIMULATION (ISEMS) - MR. KURT KOVACH
- UNIVERSAL MODEM SYSTEM - MR. JARVIS HICKS
- GSC-52 UPGRADE - MR. WILLIAM ANDERSON
- HIGH CAPACITY LINE OF SIGHT (HCLOS)
RADIO SYSTEM - MR. KENNETH CHANEY



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COL Ken Thomas

Acting Director

Space and Terrestrial

Communications Directorate

UNCLASSIFIED

18 July 1996

Point Paper

SUBJECT: Space & Terrestrial Communications Directorate APBI Input

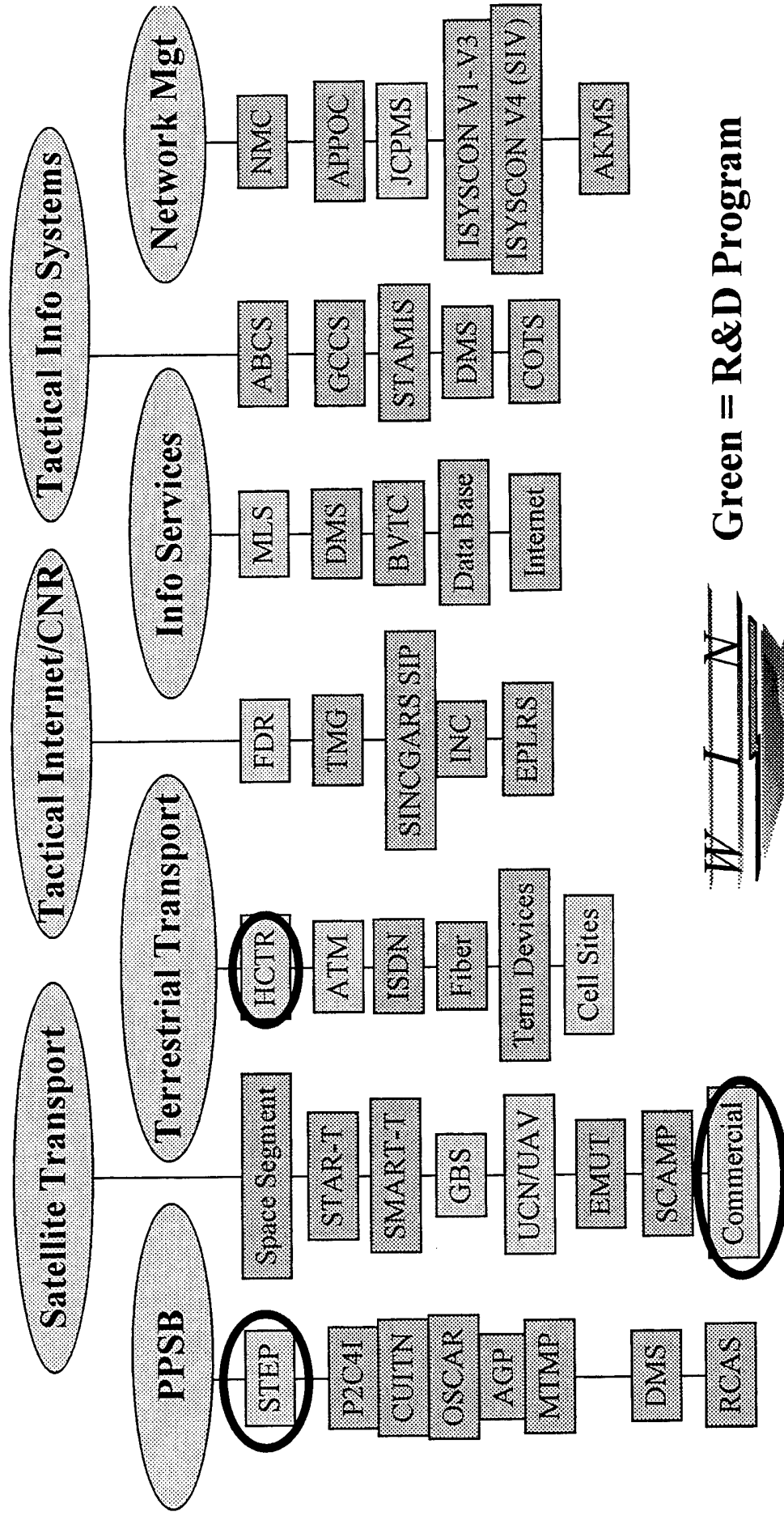
PURPOSE: To inform the APBI audience of contractual opportunities within S&TCD.

FACTS:

- S&TCD's R&D program known as BITS has been synchronized with the US Army Signal Center's Warfighter Information Network (WIN).
- Three contractual opportunities exist through the BITS to support the WIN.
- The first opportunity is a competitive procurement through a formal RFP process of a new multiplexing and patching suite of equipment known as MIDAS (Multiplexer Integration and DCSS Automation System). The RFP will be issued in Oct 96 with award projected for Apr 97.
- The second opportunity is the procurement through a Broad Agency Announcement of a High Capacity Trunk Radio. This is presently listed in the electronic bulletin board with a closeout date of 15 Aug 96.
- The third opportunity is the procurement through a Broad Agency Announcement of a prototype satellite antenna positioner and tracking system. This is projected to be awarded in the end of FY97.

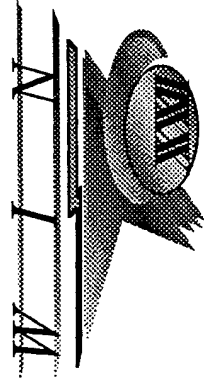
BRIEFER: Kenneth A. Thomas, COL, AMSEL-RD-ST-D, (908) 427-4449.

WIN Major Component Threads

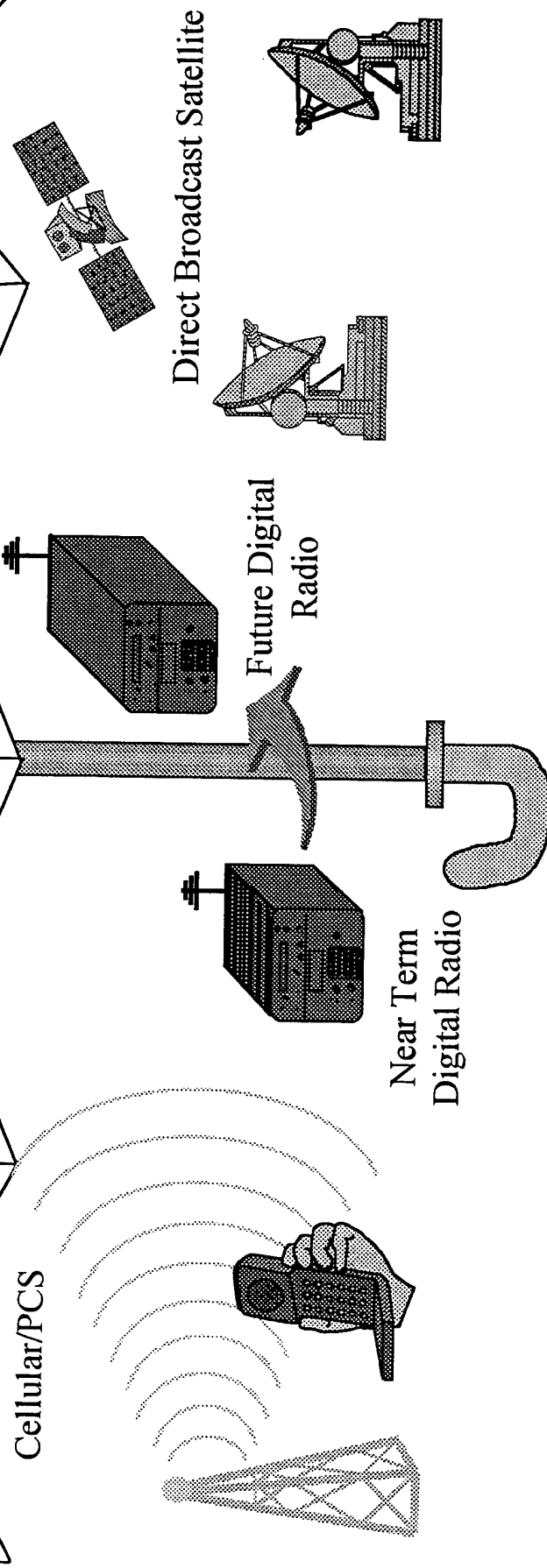


Green = R&D Program

○ = Contractual Opportunity



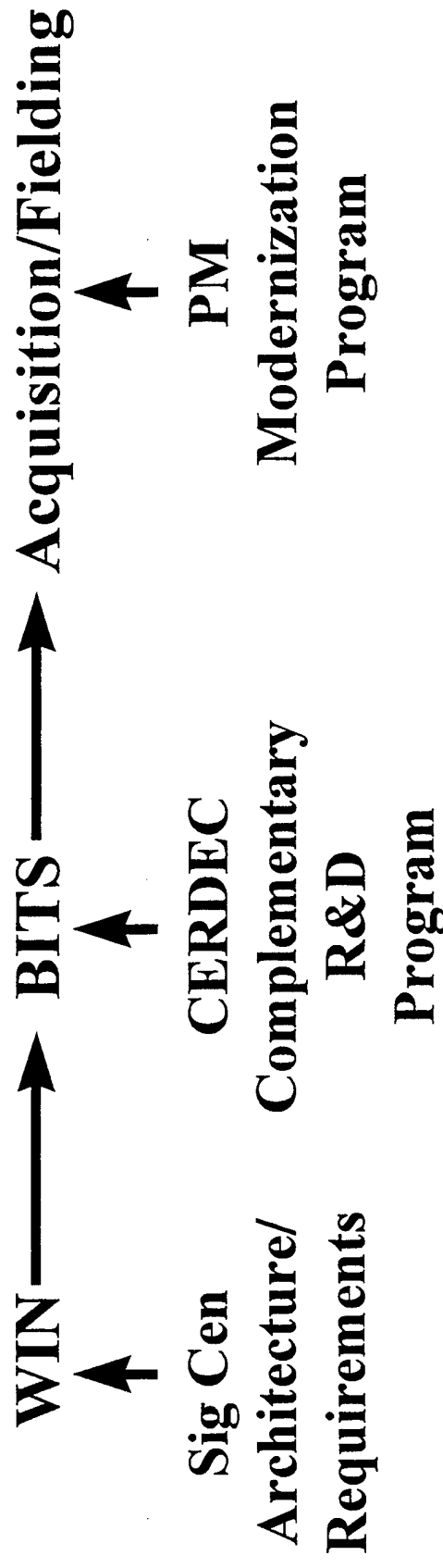
Battlefield Information Transmission System (BITS)



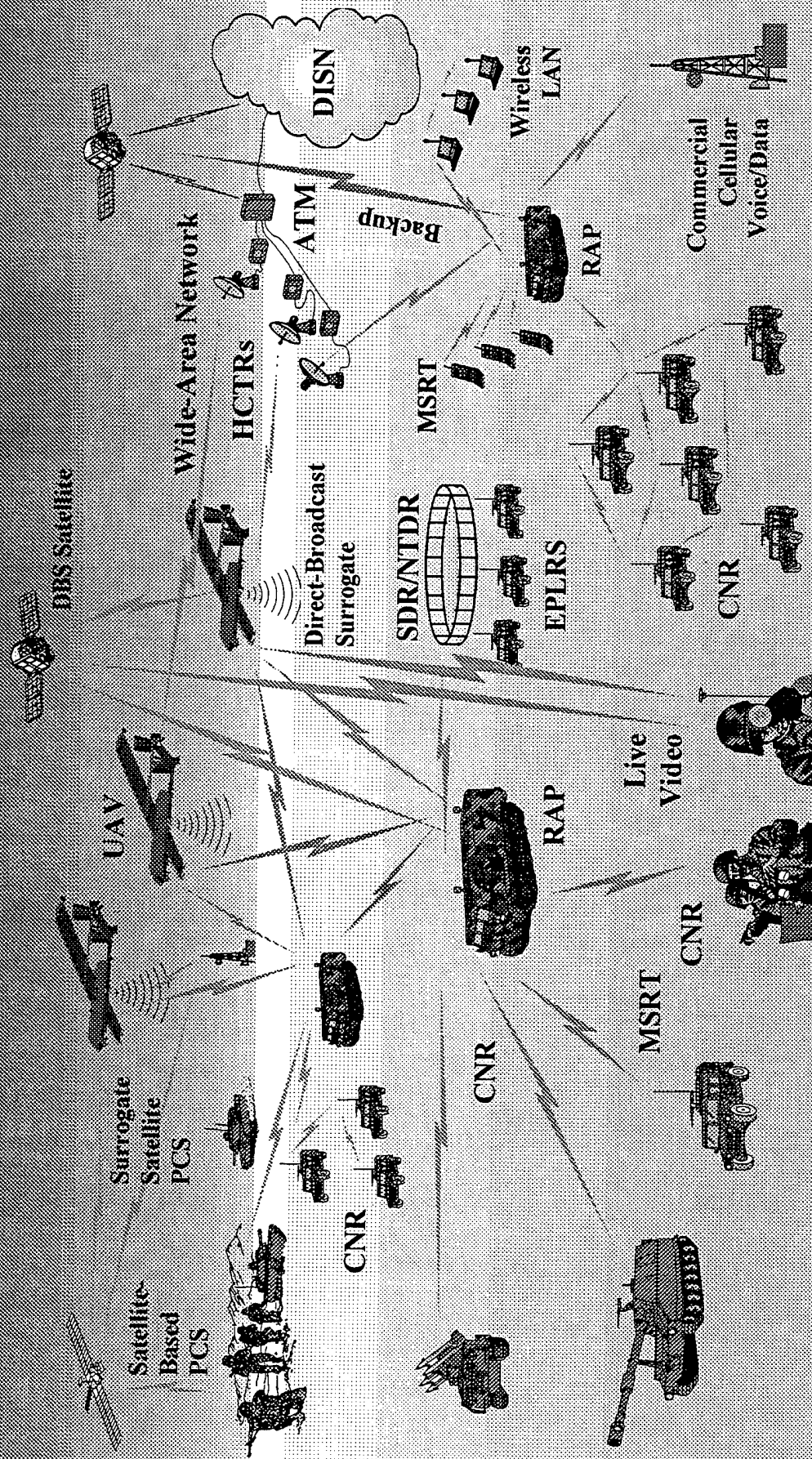
Digital Battlefield Communications ATD & AWEs will be the vehicles to define the Technologies for Future BITS Architecture

WIN-BITS-Acquisition

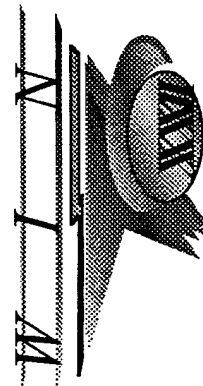
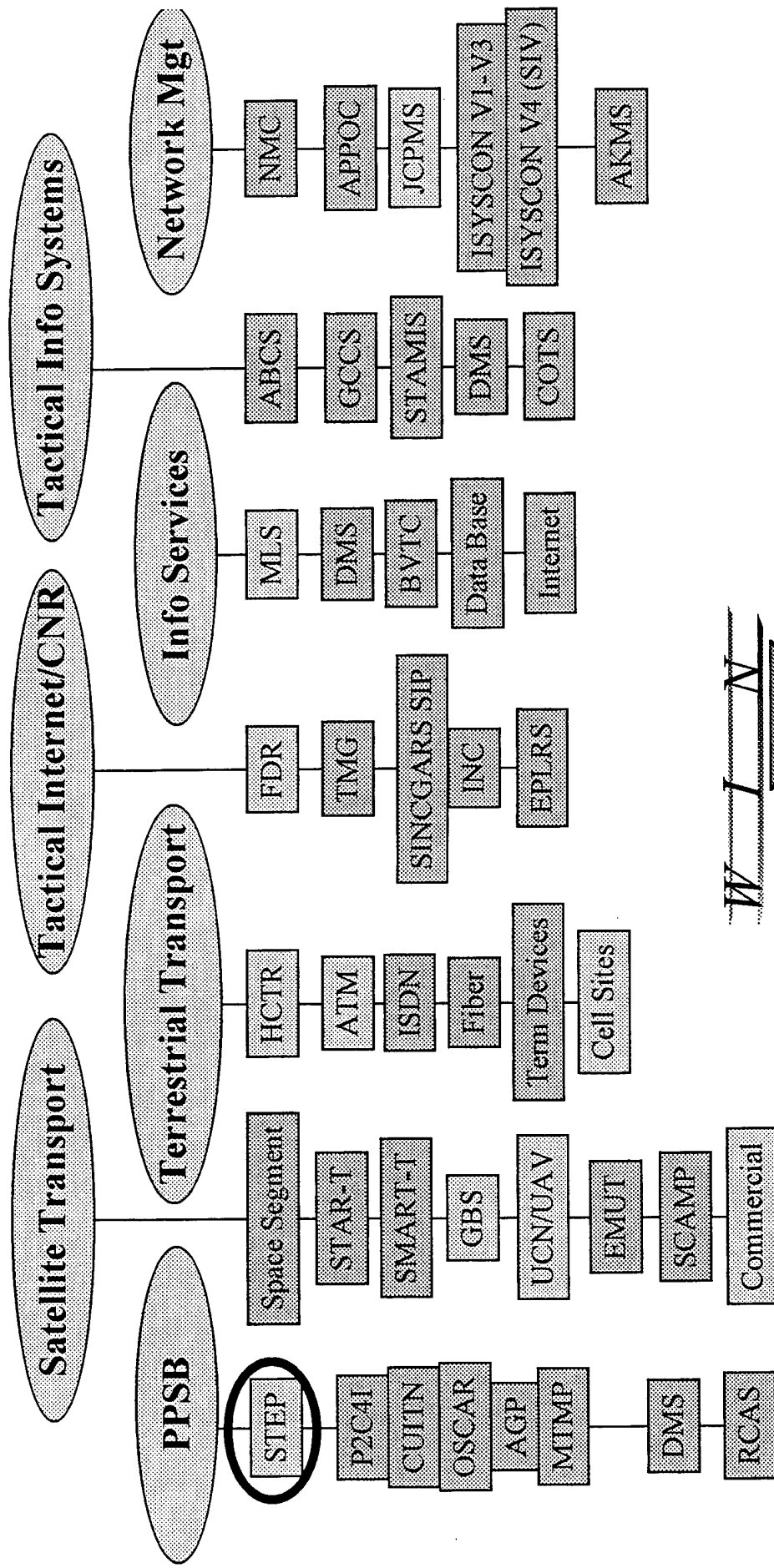
Interrelationships



Digital Battlefield Communications Architectural Elements



WIN Major Component Threads



Multiplexer Integration and DCSS Automation System (MIDAS)

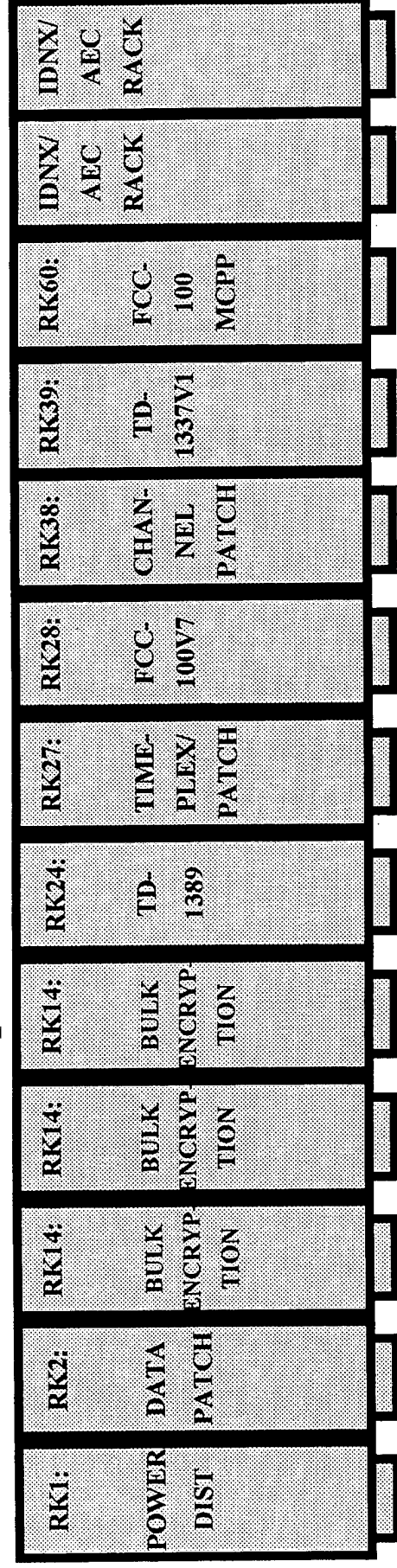
Definition

- Insert newer technologies for electronically-controlled patch, switch and multiplexer system as part of the Standardized Tactical Entry Point (STEP) upgrade, resulting in drastic size and cost reduction.

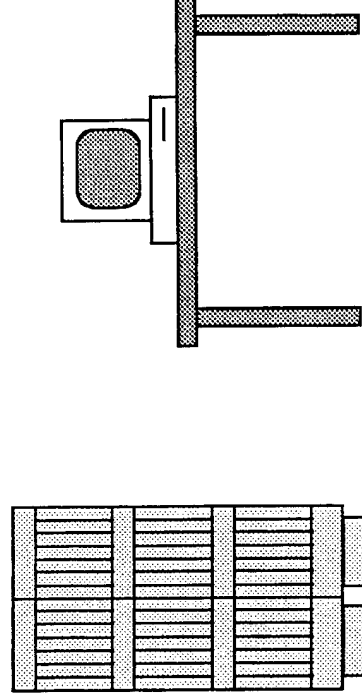
Digital Communications Satellite Subsystem (DCSS)

PRE-MIDAS STEP CONFIGURATION

Multiplexers, Electronic Patch, Modems

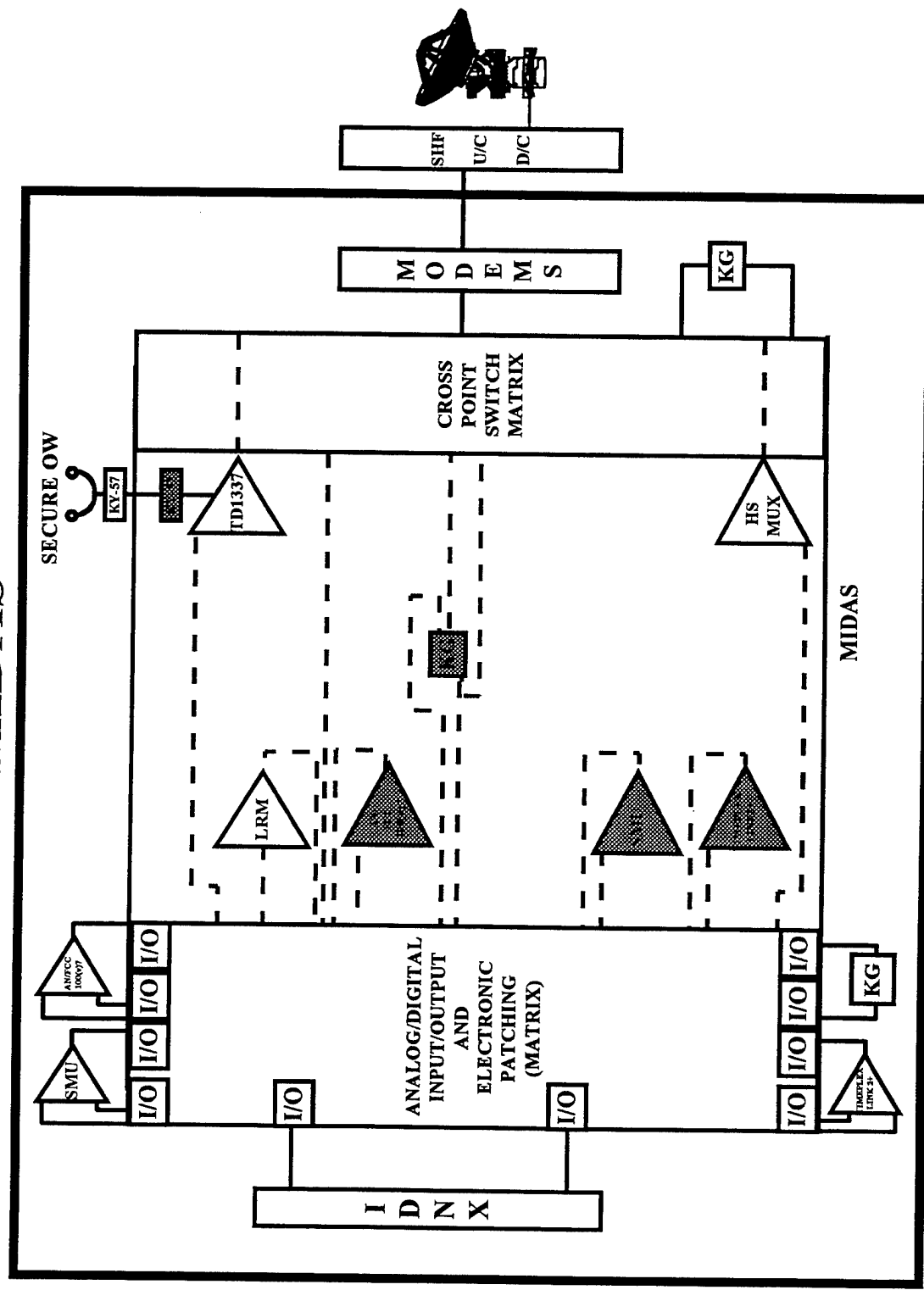


MIDAS STEP CONFIGURATION (CONCEPTUAL)



Digital Communications Satellite Subsystem (DCSS)

MIDAS



■ PARTIAL OR FUTURE CAPABILITY

DCSS

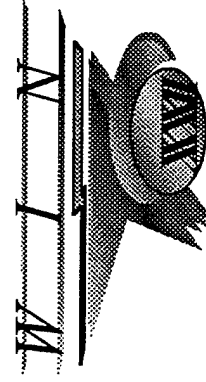
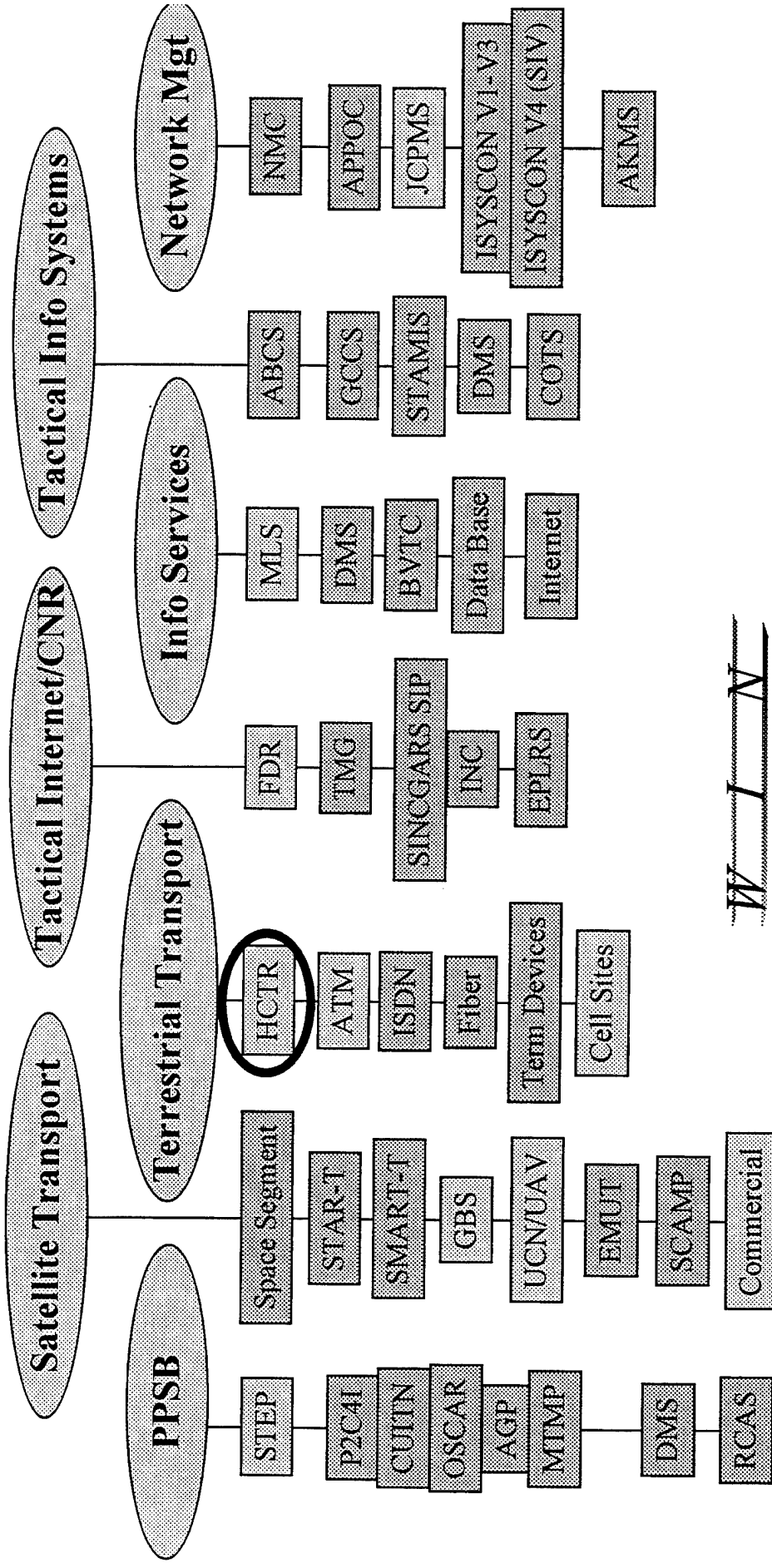
Digital Communications Satellite Subsystem (DCSS)

Status

MIDAS ACQUISITION SCHEDULE

MILESTONES	FY96	FY97
• Draft Specification	▲	
• Draft SOW	▲	
• Draft Test Plan	▲	
• Industry Brief Round 1	▲	
• Full MIDAS Test Bed (@ Ft Monmouth)	▲	
• Revised Draft Spec/SOW (Teleport Req)	▲	
• Tri Service Spec Review	▲	
• Industry Brief Round 2	▲	
• Request for Proposals	▲	
• Contract Award		▲

WIN Major Component Threads



High Capacity Trunk Radio

(HCTR) *Definition*

- Radio that will provide multimedia LOS transmission capability over Services wideband backbones at trunking rates of 1.544 to 155.52Mb/s
- Provide ATM-to-ATM switch interconnections of up to 40 km link lengths (22 miles)
- Support on-the-move operation over land and sea

High Capacity Trunk Radio (HCTR)

Technology Challenges

- High reliability/low BER transmissions in a tactical ATM environment
- Need for tunability to support wideband frequency allocations for use of ATM in worldwide deployments
- Selection of robust and spectrally efficient modulation schemes to support tactical On-The-Move (OTM) ATM transmissions

High Capacity Trunk Radio (HCTR)

Technology Challenges

- Selection of robust digital signalling processing techniques (ie., transversal adaptive equalizer) to minimize multipath and frequency dispersive fading for static and OTM communications
- Develop antenna technology to support OTM operations and mast stability and antenna alignment requirements
- Suitable LOS link distances for the 7-8 Ghz frequency band

High Capacity Trunk Radio (HCTR)

Status

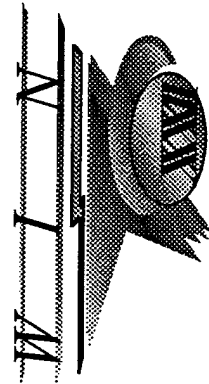
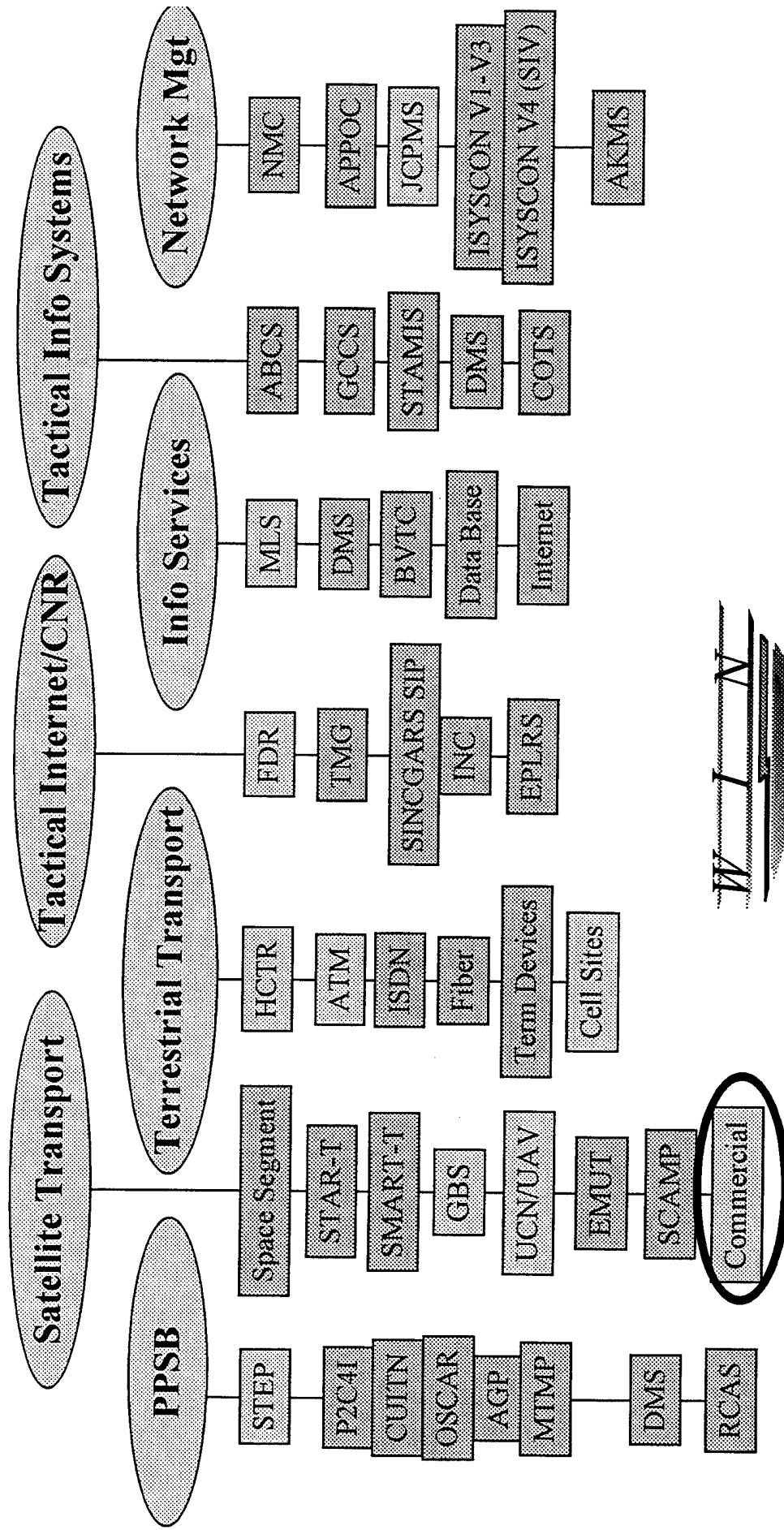
MILESTONES	FY96	FY97	FY98
<ul style="list-style-type: none"> •Phase I R&D <ul style="list-style-type: none"> ↳ Purchased COTS SONET radio ↳ Propagation measurements ↳ ATM interfacing ↳ Evaluate COTS features which may be incorporated into HCTR ↳ Modeling and Simulation •Phase II HCTR(-) <ul style="list-style-type: none"> ↳ Purchase HCTR(-) ↳ Demonstrate a Near Term ATM Link for MSE ↳ Integrated in Division XXI 			

High Capacity Trunk Radio (HCTR)

Status

MILESTONES	FY97	FY98	FY99
<p>•Phase III HCTR</p> <p>↳Competitive procurement 1Q97</p> <p>↳Develop prototypes for evaluation in Corps XXI (45 Mbps & T1 Stationary)</p> <p>↳OTM HCTR 45 Mbps for JWID 99</p>	<p>▲</p>	<p>▲ (4) ▲ (4)</p>	<p>▲ (8)</p>

WIN Major Component Threads



SHF Satellite Comm OTM

Antenna Positioner/Tracker

Definition

Develop a prototype vehicle-mounted SHF antenna positioner/tracker to support satellite communications on the move via the Defense Satellite Communications System (DSCS) family of satellites

SHF Satellite Comm OTM

Antenna Positioner/Tracker

Technology Challenges

- Position a two foot dish, or smaller, antenna
- Mountable on a HMMWV / CUCV and other small combat vehicles.
- TSC-85 / -93 compatible.

SHF Satellite Comm OTM

Antenna Positioner/Tracker

Technology Challenges (cont)

- Point to the specified satellite with sufficient accuracy to establish the communication link, without operator assistance
- Maintain the pointing angle and comm link during vehicle movements.
- Operate at 40mph on improved roads, 10mph on unimproved roads / off-road

SHF Satellite Comm OTM

Antenna Positioner/Tracker

Status

MILESTONES	FY-98	FY-99	FY-00	FY-01
Solicitation Released for Lab Prototype	▲			
Deliver Prototype for lab testing	▲			
Lab demonstrations, requirements defined		■		
Solicitation released vehicle prototype		▲		
Delivery of vehicle prototype			▲	
Field demonstrations			■	

Potential Contract Opportunity

Title: MULTIPLEXER INTEGRATION AND DCSS
AUTOMATION SYSTEM (MIDAS)

Objective: Downsize and Enhance Multiplexers within
STEP for the DCSS

Proposed Contract Type: Competitive, FFP/FPI

Key Milestones: RFP - Oct 96

Award - Apr 97

Minimum 20 Systems

Estimated Value: \$10-30 M

Tech POC/Tel#: Cathy Young, (908) 532-9873, x5453

Potential Contract Opportunity

Title: HIGH CAPACITY TRUNK RADIO (HCTR)

Objective: Develop high capacity, ATM compatible line of sight trunk radio

Proposed Contract Type: CPFF/CPIF

Key Milestones: Ongoing BAA solicitation #DAAB07-94-R-D015 for proposals. White paper describing functional requirements. EBB closeout date is 15 Aug 96. 8 models delivered.

Estimated Value: \$4-6 M

Tech POC/Tel#: John Bojarski, (908) 427-4143

Potential Contract Opportunity

Title: SHF SATELLITE COMM OTM ANTENNA
POSITIONER/TRACKER

Objective: Develop a prototype two-foot-dish-antenna positioner/tracker for use with SHF DSCS satellites.

Proposed Contract Type: CPFF
see Broad Agency Announcement DAAB07-94-R-D015

Key Milestones: Delivery of laboratory prototype in FY 98 with a follow on field demonstration in FY 00

Estimated Value: \$0.6 - \$0.8 M per delivery award

Tech POC/Tel#: Pete Stevens, (908) 427-2039



NOTES

IMPROVED SPECTRUM EFFICIENCY MODELING AND SIMULATION (ISEMS)



Kurt Kovach

**Chief, C3I Modeling/Simulation Architecture Division
Command, Control and Systems Integration
Directorate**

UNCLASSIFIED

POINT PAPER

SUBJECT: Improved Spectrum Efficiency Modeling and Simulation

OBJECTIVE: The Improved Spectrum Efficiency Modeling and Simulation (ISEMS) exploratory development program is an Army Science and Technology Objective that will focus efforts in support of the Army Enterprise Vision of Winning the Information War and Digitization of the Battlefield. Key to this challenge will be the development of an enhanced communication modeling and simulation environment that provides real time, flexible, DIS-compatible and cost effective capabilities for resolving complex operational problems while ensuring that synthetic environments reflect the same communications effects that are realized in the live environment.

FACTS:

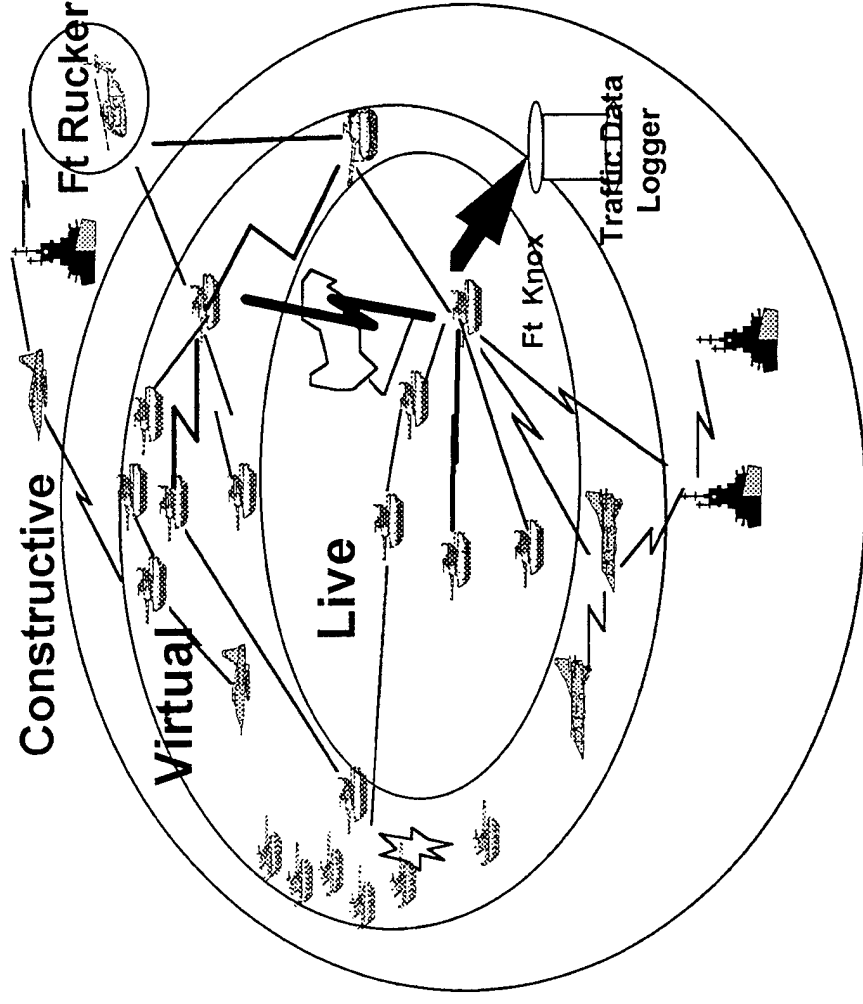
- The emphasis will be on real time descriptions of environment phenomena for applications to modeling of dynamic network and communication system performance management, communication equipment characteristics, communications realism and propagation reliability algorithms, spectrum use efficiency, and frequency management techniques.
- Techniques, including Taguchi design of experiment, will be used to reduce simulation run times and increase confidence in results.

BRIEFER: Chandrakant Sheth; Chief, Modeling and Simulation Branch; Command, Control and Systems Integration Directorate; AMSEL-RD-C2-BC-CA; (908) 427-3588.

ISEMS Program Definition

- Develop deterministic and stochastic processes to characterize the impacts of terrain, foliage, multipath fading, and other environmental factors on communications systems performance
- Evaluate the effects of countermeasures, including coding, interleaving and dynamic adaptive equalization, on systems performance

Objective M&S Environment:
Realistic Communications
Constructive-Virtual-Live Interfaces



ISEMS Program Definition (Cont.)

- **Provide Distributed Interactive Simulation (DIS)-compliant communications models that ensure synthetic environments reflect the same communications problems that are encountered in live environments**
- **Providing enhanced real-time M&S environments that provide “plug and play” capabilities**

ISEMS Status

- Completed development of Integrated Terrain-Environment-Multipath Model (ITEMIM) (1QFY96)
- Completed integration of Communications Realism Submodel (CRS) with CECOM Systems Performance Model (SPM) to support MIL-STD 188-220A, Appliqué, the Tactical Internet and other analyses for Task Force XXI (1QFY96)
- Developed SPM submodels, including airborne propagation models, for HAVEQUICK and High-Frequency Nap-of-the-Earth radios (1QFY96)

ISEMS Status (Cont.)

- Completed M&S study concerning use of SINGGARS SIP for combat identification application (2QFY96)
- Performed initial demonstration of Real-Time Communications Network Simulator (RTCNS) (3QFY96)
- Performed analysis of results of High-Capacity Trunk Radio (HCTR) prototype experiment (3QFY96)

ISEMS Requirements

- **Develop DIS-compatible models for emerging Army communications systems including Surrogate Digital Radio (SDR), Near-Term Digital Radio (NTDR), and Global Broadcast System (GBS)**
- **Perform M&S to support development of HCTR needed to meet Radio Access Point (RAP) on-the-move requirements and provide increased capacity for the Army's Mobile Subscriber Equipment**

ISEMS Requirements (Cont.)

- **Develop definition of Army Command, Control, Communications, Computers and Intelligence (C4I) common modeling environment**
- **Develop techniques for reducing simulation run times and increasing confidence in results**



NOTES

UNIVERSAL MODEM SYSTEM (UMS)

Jay Hicks
PM SATCOM

UNCLASSIFIED

23 July 96

POINT PAPER

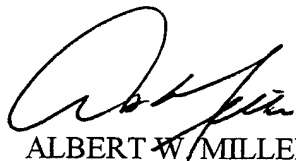
SUBJECT: Universal Modem System (UMS)

OBJECTIVE: UMS is the acquisition and support of the next generation Anti-Jam (AJ), Anti-Scintillation (AS) Super High Frequency (SHF) satellite modems and control system. This production procurement will be in support of U.S., U.K., French and, potentially, NATO strategic, airborne strategic, tactical, and shipborne tactical AJ/AS SHF requirements.

FACTS:

- The UMS will replace the USC-28 and OM-55 modems currently in the U.S. inventory and be utilized in the SHF Tri-Band Advanced Reliable Tactical Terminal (STAR-T).
- This procurement will incorporate acquisition streamlining principles (performance based specifications and contractor defined processes). Source data will be provided from the UMS Full Scale Engineering Development (FSED) contract as Government Furnished Information (GFI).
- The contract will be Firm Fixed Price, Range Quantities, with Five Option Years (each with range quantities). There will be 10 years of Time and Material support options.
- Proposal evaluation will be based on best overall value.
- Milestones listed below reflect the planned schedule for the UMS:
 - ** RFP Release Aug/Sep 96
 - ** Contract Award Jan 97

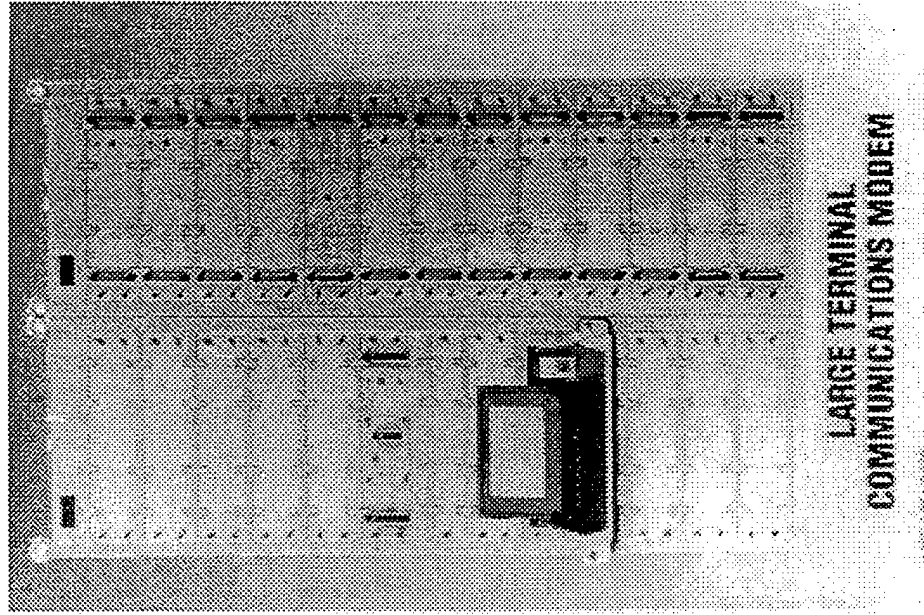
BRIEFER: Mr. Jay Hicks, Electronic Engineer, Project Manager Satellite Communications, SFAE-C3S-SC-MD, (908) 532-9727 x6827



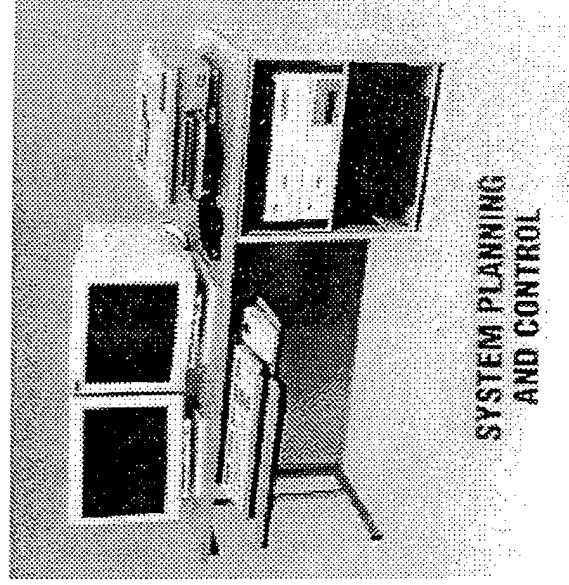
ALBERT W. MILLER
Acting Project Manager
PM SATCOM

UNIVERSAL MODEM SYSTEM

(FSIED MODELS)



OM-83



AN/GSQ-256

UMS

CAPABILITIES OVERVIEW

- UMS supports the warfighters Super High Frequency (SHF) Satellite Communication requirements.
 - Maintains 2.048 Mbps links in Anti-Jam (AJ) mode against tactical jammers.
 - 8.192 Mbps links in Frequency Division Multiple Access (FDMA).
 - Provides Low Probability of Intercept (LPI) and Low Probability of Exploitation (LPE) capability for multi-channel satellite operations.

UMS

CAPABILITIES OVERVIEW (cont.)

- UMS supports the warfighters Super High Frequency (SHF) Satellite Communication requirements (cont).
 - Provides protection against High Altitude Electro-Magnetic Pulse (HEMP) and Scintillation.
 - Provides embedded COMSEC/TRANSEC and Over-The-Air Rekeying (OTAR).
 - Meets United Kingdom unique requirements for Electronic Support Measures (ESM), Time Division Multiple Access (TDMA).

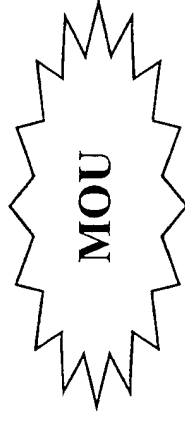
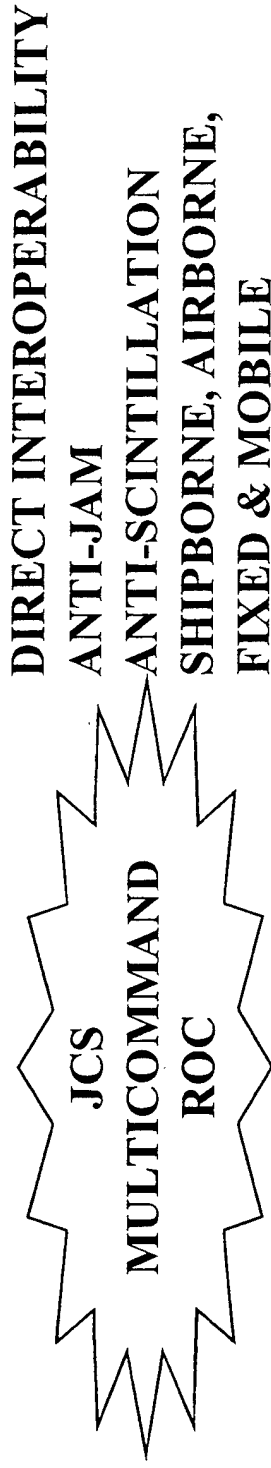
UMS

CAPABILITIES OVERVIEW (cont.)

- Provides interoperability among allies, services, and legacy systems.
 - NATO III & IV, DSCS II & III, SKYNET, TELECOM Satellites.
 - Commercial satellites.
 - Backwards compatible with Ground Mobile Forces (GMF) terminals in FDMA mode.
 - Compliant with Interoperable Waveform Standards (IWS) STANAG.
 - Will establish Medium Data Rate (MDR) Waveform standard.

UMS

UNIVERSAL MODEM REQUIREMENTS



US/UK/FR COOPERATIVE
DEVELOPMENT
US/UK/FR PRODUCTION



CORE/FULL INTEROPERABILITY
UM HARDWARE REFERENCE



BURST TRANS MODE
UNIQUE INTERFACES
LOWER DATA RATES



SUMIE INTERFACE
UNIQUE CONTROL CIRCUIT

UMS

CONTRACTING

- SOLICITATION
 - “Best Value” Evaluation
- CONTRACT
 - Basic Contract with 5 (annual) quantity options
 - Firm Fixed Price for hardware
 - Quantities (in ranges)
 - Initial (Basic Contract) : 20 - 80 (approximate)
 - Annual Quantity Options : 20 - 80 (approximate)
 - Priced by CLIN (Component - eg Comm Unit)

UMS CONTRACTING (cont.)

- Contract (cont.)
 - Support Options (Time and Materials)
 - Software, Maintenance, Supply, logistics support, etc.
 - 10 years after fielding

UMS

CONTRACT OPPORTUNITY

TITLE: Universal Modem System

OBJECTIVE: Production and Support of the
Universal Modem System

PROPOSED CONTRACT TYPE: Firm Fixed Price
KEY MILESTONES: Issue RFP (DAAB07-96-R-
A001) Aug/Sep 96

ESTIMATED VALUE: \$100M-\$300M

TECH POC/TEL#: Bharat Parikh 908 532-9727 X6837

CONT POC/TEL#: Linda College 908 532-5798



NOTES

**AN/GSC-52 MODERNIZATION
PROGRAM**

**WILLIAM T. ANDERSON
PRODUCT MANAGER
DEFENSE SATELLITE
COMMUNICATIONS SYSTEMS TERMINALS
PM SATCOM**

UNCLASSIFIED

23 July 1996

POINT PAPER

SUBJECT: AN/GSC-52 Modernization Program

PURPOSE: The AN/GSC-52 Modernization Program is the acquisition of Commercial-Off The Shelf (COTS) and Non-developmental items (NDI) with the integration of Government Furnished Equipment (GFE) to modernize the existing AN/GSC-52 SATCOM terminals to extend its life another 15-20 years.

FACTS:

- The AN/GSC-52 terminals currently in the field are rapidly approaching their design lifespan which has negatively impacted operational availability.
- The modernization effort will extend the life of the terminals by another 15-20 years through insertion of current technology.
- Operational availability and reliability parameters will be restored to what the original values were.
- Obsolescence will be eliminated in the electronics and the antenna subsystems
- Reduction of operation and support costs.
- Equipment commonality will be maximized with the AN/FSC-78/79 and AN/GSC-39 SATCOM terminals to reduce the Integrated Logistics Support costs and reduce training requirements on the signal school.
- Key milestones are:

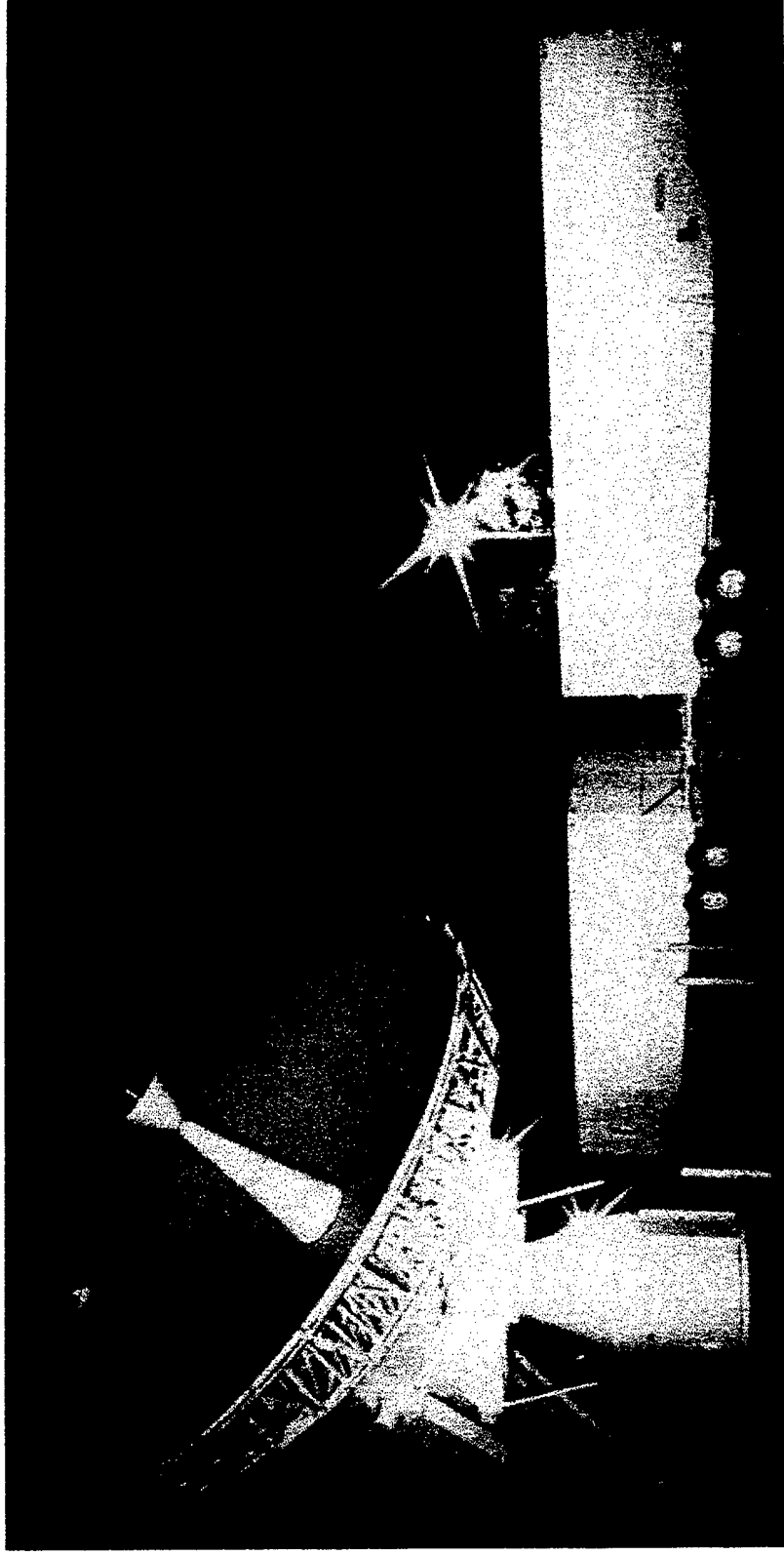
Draft Solicitation	2nd Qtr FY97
Final Solicitation	4th Qtr FY 97
Contract Award	1st Qtr FY 98
First Article Approval	1st Qtr FY 01

BRIEFER: Mr. William T. Anderson, Product Manager, Defense Satellite Communication System (DSCS) Terminals, PM SATCOM, SFAE-C3S-SC-DT, (908) 532-0995.



REVIEWED/APPROVED BY: WILLIAM T. ANDERSON
Product Manager - DSCS Terminals

AN/GSC-52 MODERNIZATION PROGRAM



AN/GSC-52 MODERNIZATION PROGRAM

TERMINAL INFORMATION

- 25 AN/GSC-52 (V)1 (FIXED TERMINAL)
- 14 AN/GSC-52 (V)2 (VANIZED TERMINAL)

- 39 TOTAL

AN/GSC-52 MODERNIZATION PROGRAM

PURPOSE

- EXTEND THE LIFE OF THE TERMINALS
- IMPROVE OPERATIONAL AVAILABILITY
- INCREASE RELIABILITY
- ELIMINATE ANTENNA COMPONENT
OBSOLESCENCE
- MAXIMIZE COMMONALITY WITH THE
AN/FSC-78/79 AND AN/GSC-39 TERMINALS
- REDUCE OPERATION AND SUPPORT COST

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS

- SYSTEM DESIGN / INTEGRATION
 - GOVERNMENT FURNISHED EQUIPMENT
 - UP/DOWN CONVERTERS
 - HIGH POWER AMPLIFIERS
 - CESIUM STANDARDS
 - CONTROL, MONITOR AND ALARM (CMA)
 - RACKS/CABLING
 - HUMAN FACTORS ENGINEERING (HFE)
 - TESTING

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- MODIFICATION WORK ORDER (MWO) KITS
 - AN/GSC-52 MODERNIZATION KIT
(VAN/FIXED)
 - AN/FSC-78 / AN/GSC-39 CMA
 - AN/FSC-78 / AN/GSC-39 UP/DOWN
- CONVERTER CAPACITY AUGMENTATION

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- ANTENNA UPGRADES
 - DRIVE GEAR BOXES
 - ELEVATED EQUIPMENT ROOM
 - DRY AIR SUBSYSTEM REPLACEMENT
 - DATA BOXES
 - MOTOR/BRAKE ASSEMBLIES
 - REMOTE CONTROL UNIT
- ANTENNA REFURBISHMENT

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- SITE SURVEYS
- INSTALLATION (3 SITES)
 - FT GORDON
 - FIXED SITE
 - VANIZED SITE
- INSTALLATION OPTION (36 SITES)

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- INTEGRATED LOGISTICS SUPPORT (ILS)
 - DOCUMENTATION
 - INTERACTIVE ELECTRONIC ENVIRONMENT INTEGRATING TECHNICAL MANUALS (TM's) / MAINTENANCE ALLOCATION CHARTS (MAC's) / REPAIR PARTS SPECIAL TOOL LISTS (RPSTL's)
 - DATA STORED ON CD ROM

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- INTEGRATED LOGISTICS SUPPORT (ILS) (cont'd)
 - DOCUMENTATION (cont'd)
 - INTERACTIVE ELECTRONIC ENVIRONMENT REQUIREMENTS WILL BE INCLUDED IN THE CMA SPECIFICATION
 - CONTRACTOR MUST COMPLETE / VERIFY DOCUMENTATION BY FIRST ARTICLE APPROVAL

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- INTEGRATED LOGISTICS SUPPORT (ILS) (cont'd)
 - TRAINING
 - DEVELOP COMPUTER-BASED TRAINING MATERIAL TO RUN CONCURRENTLY WITH CMA SOFTWARE FOR ON-SITE USE
 - TRAINING MUST ALLOW ON-SITE PERSONNEL TO DISPLAY / TROUBLESHOOT SIMULATED FAULTS

AN/GSC-52 MODERNIZATION PROGRAM

MAJOR TASKS (cont'd)

- INTEGRATED LOGISTICS SUPPORT (ILS) (cont'd)
 - PROCESSOR BASED COMPONENTS WILL HAVE LIFETIME CONTRACTOR SUPPORT TO INCLUDE TECHNOLOGY REFRESHMENT FOR OBSOLESCENCE.
 - SPARING TO RELIABILITY, AVAILABILITY, AND MAINTAINABILITY (RAM) PARAMETERS

CONTRACT OPPORTUNITY

TITLE: AN/GSC-52 MODERNIZATION PROGRAM

OBJECTIVE: EXTENDED SYSTEM OPERATIONAL LIFE

PROPOSED CONTRACT TYPE: FFP/T&M

KEY MILESTONES:

DRAFT SOLICITATION	2nd QTR FY 97
FINAL SOLICITATION	4th QTR FY 97
CONTRACT AWARD	1st QTR FY 98
FIRST ARTICLE APPROVAL	1st QTR FY 01

ESTIMATED VALUE: \$110 - \$125M

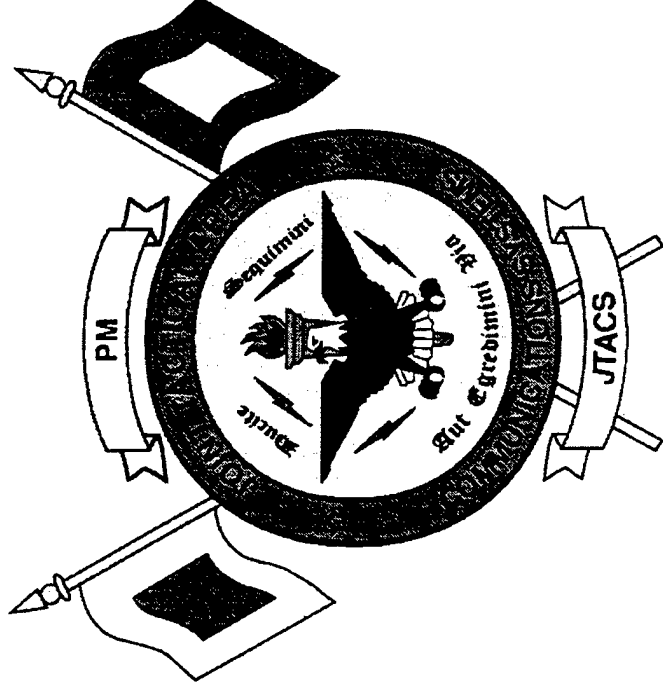
TECH POC/TEL#: GERALD CHRISTOPHE/908 532-9728 X5811

CONTRACT POC/TEL#: WENDY McCUTCHEON/908 532-5438



NOTES

**HIGH CAPACITY LINE OF SIGHT (HCLOS)
RADIO SYSTEM**



**KENNETH CHANEY
PRODUCT LEADER
PM JTACS**

UNCLASSIFIED

12 JUL 1996

POINT PAPER

SUBJECT: High Capacity Line of Sight (HCLOS) Radio System

PURPOSE: The HCLOS Radio System Brief to be presented as part of the Advance Planning Briefing to Industry (APBI) will describe the contract opportunity available for this radio system.

FACTS:

- The HCLOS Radio System will support mid-term (1998-2000) requirements for increased transmission capacity for the Area Common User System (ACUS) as outlined in the ACUS Modernization Plan (ACUS MP).
- Increased data transmission capacity of the HCLOS will support the introduction of Asynchronous Transfer Mode (ATM) Technology in to the ACUS and will be fielded concurrently with the ATM Switching upgrade program.
- There are two functionalities that will be supported: The first is HCLOS function for internodal ACUS radio links of up to 40 km at Echelons Above Corps (EAC) and Echelons Corps and Below (ECB). The second function is a Short Range Wide Band Radio (SRWBR) function for Down-the-Hill (DTH) radio at ranges of up to 8 km. The SRWBR will be used at EAC to separate switching and radio transmission equipments.
- Acquisition of the HCLOS will begin in FY98, and the SRWBR in FY99.

BRIEFER: Kenneth Chaney, Electronics Engineer, SFAE-C3S-JTC-ITI, X23525.



ALLAN J. SCHNABOLK
Chief, Information Transport
and Integration Division

HCLOS RADIO SYSTEM

SYSTEM DEFINITION

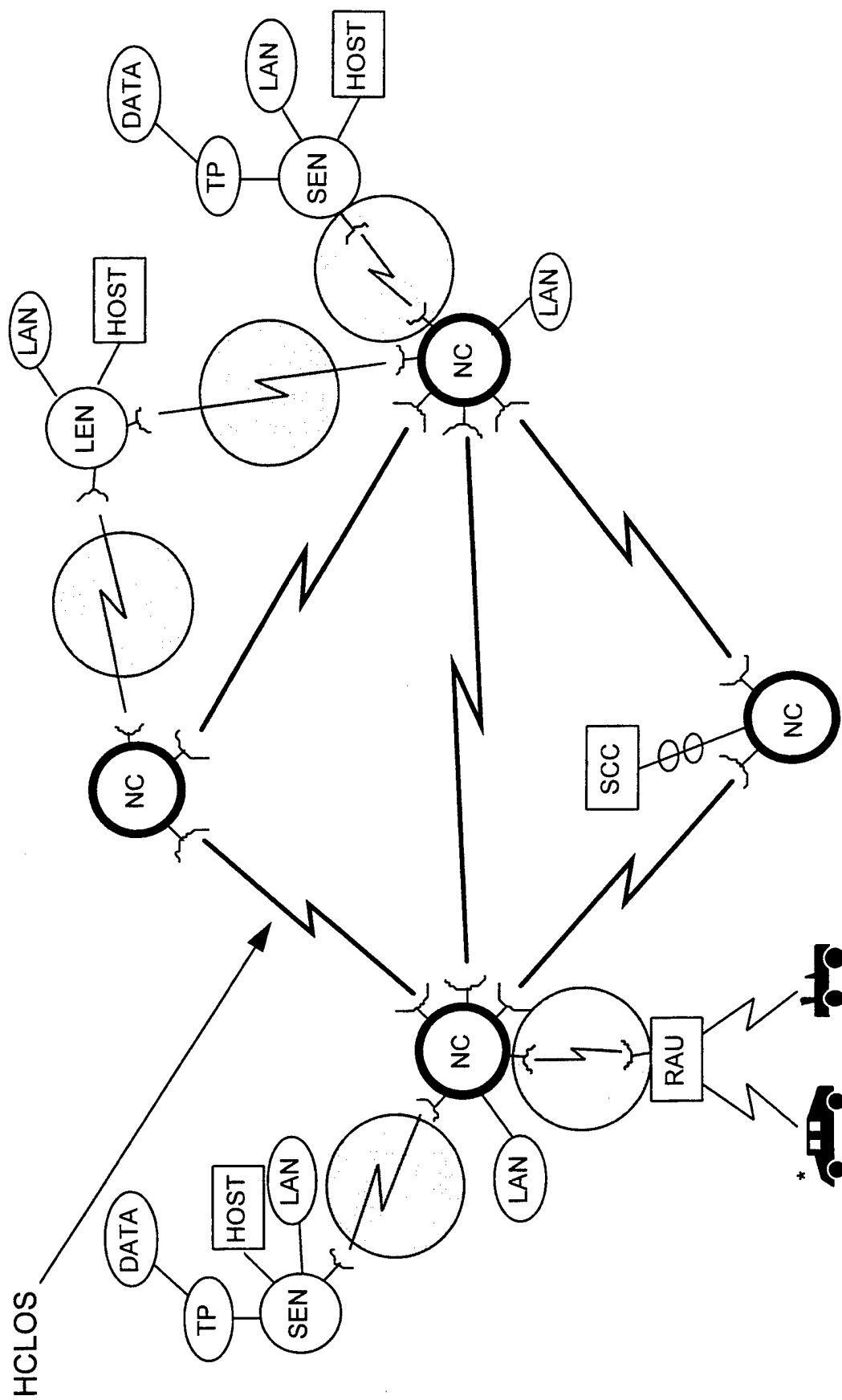
- TACTICAL LINE OF SIGHT (LOS) RADIO SYSTEM TO SUPPORT INCREASED DATA TRANSMISSION CAPACITY REQUIREMENTS FOR THE AREA COMMON USER SYSTEM (ACUS)
- WILL PROVIDE A REPLACEMENT RADIO AND ANTENNA SYSTEM FOR:
 - ECHELONS CORPS AND BELOW (ECB) - AN/GRC-226(V) USED FOR INTER-NODAL NODE CENTER SWITCH (NCS) TO NCS CONNECTIVITY
 - ECHELONS ABOVE CORPS (EAC) - AN/GRC-222 USED FOR AN/TTC-39D TO AN/TTC-39D CONNECTIVITY
 - EAC - AN/GRC-222 USED FOR SHORT RANGE WIDE BAND RADIO (SRWBR) DOWN THE HILL CONNECTIVITY

HCLOS RADIO SYSTEM SYSTEM DEFINITION (CONT'D)

- LEVERAGES ON THE HIGH CAPACITY TRUNK RADIO,
MINUS (HCTR(-)) AND HIGH CAPACITY TRUCK RADIO
(HCTR) DEVELOPMENTAL PROGRAMS

HCLOS RADIO SYSTEM

ECB AREA COVERAGE



HCLOS RADIO SYSTEM

PROGRAM STATUS

- MISSION NEED STATEMENT (ACUS MODERNIZATION PLAN)
APPROVED 10 APRIL 1996
- OPERATIONAL REQUIREMENTS DOCUMENT (USER FUNCTIONAL
DESCRIPTION [UFD]) 1QFY97
- FREQUENCY STUDY / SPECTRUM ALLOCATION ONGOING
(JOINT SPECTRUM CENTER)
- CECOM RDEC (ONGOING EFFORTS)
 - HCTR (-) DEVELOPMENT
 - HCTR DEVELOPMENT
 - HCLOS PRODUCT SPECIFICATION

HCLOS

SYSTEM REQUIREMENTS *

ECB

- HCLOS
 - MEET EXISTING OPERATIONAL REQUIREMENTS FOR THE MSE AN/TRC-190(V) LOS ASSEMBLAGE
 - 25Km (NOM) AND 40 Km (MAX) LINK DISTANCE (15m MAST)
 - 30 MINUTE SETUP AND TEARDOWN TIME
 - STATIONARY OPERATION
 - FREQUENCY RANGE (TBD)
 - BANDWIDTH EFFICIENT MODULATION

* PRELIMINARY PENDING ORD COMPLETION

HCLOS

SYSTEM REQUIREMENTS (CONT'D) *

ECB

- HCLOS
 - DATA RATES
 - TRI-TAC / MSE MODULO 8 AND 9 RATES 1024 THROUGH 4608 Kbps
 - 1544, 8192, AND 8448 Kbps
 - BASE BAND INTERFACE
 - TRI-TAC / MSE BALANCED NRZ (ICD-002)
 - REMOTE CONTROL / MONITORING (SNMP)
 - RS-422, 64Kbps

* PRELIMINARY PENDING ORD COMPLETION

HCLOS

SYSTEM REQUIREMENTS (CONT'D) *

EAC

■ HCLOS

- MEET EXISTING OPERATIONAL REQUIREMENTS FOR THE AN/TRC-138 DGM ASSEMBLAGE
- 25 MILES (40 Km) LINK DISTANCE (30m MAST)
- 99.9% LINK AVAILABILITY
- STATIONARY OPERATION
- FREQUENCY RANGE (TBD)
- BANDWIDTH EFFICIENT MODULATION

* PRELIMINARY PENDING ORD COMPLETION

HCLOS SYSTEM REQUIREMENTS (CONT'D) *

EAC

- HCLOS
 - DATA RATES:
 - TRI-TAC / MSE MODULO 8 AND 9 RATES 1024 THROUGH 4608 Kbps
 - 1544, 8192, AND 8448 Kbps
 - BASE BAND INTERFACE
 - TRI-TAC / MSE BALANCED NRZ (ICD-002)
 - REMOTE CONTROL / MONITORING (SNMP)
 - RS-422, 64 Kbps

* PRELIMINARY PENDING ORD COMPLETION

HCLOS

SYSTEM REQUIREMENTS (CONT'D) *

EAC

■ SRWBR

- MEET EXISTING OPERATIONAL REQUIREMENTS FOR AN/TRC-138, AN/TRC-175
- 8 Km LINK DISTANCE (30m MAST)
- 99.9% LINK AVAILABILITY
- STATIONARY OPERATION
- FREQUENCY RANGE (TBD)
- BANDWIDTH EFFICIENT MODULATION
- DATA RATE 45/51 Mbps
- BASEBAND INTERFACE DS3/STS-1/OC-1 (TBD)
- REMOTE CONTROL / MONITORING (SNMP)
 - RS-422, 64Kbps

* PRELIMINARY PENDING ORD COMPLETION

HCLOS

CONTRACT OPPORTUNITY

TITLE: HIGH CAPACITY LOS RADIO SYSTEM

OBJECTIVE:

- REPLACEMENT FOR INTERNODAL LOS RADIO LINKS FOR ECB AND EAC
- INCREASED DATA TRANSMISSION CAPACITY

PROPOSED CONTRACT TYPE: PRODUCTION, FIRM FIXED PRICE (FFP)

KEY MILESTONES:

- | | |
|------------------------------|-----------------|
| - DRAFT PRODUCT SPEC RELEASE | 1QFY97 |
| - RFP RELEASE | 4QFY97 |
| - CONTRACT AWARD | 3QFY98 |
| - DELIVERY | 1QFY00 - 4QFY10 |
| - FIELDING | 1QFY01 - 4QFY12 |

ESTIMATED VALUE: \$80M - \$130M

TECH POC / TEL #: KENNETH CHANEY, (908) 532-3525

CONTRACT POC / TEL #: MADONNA SOUTHCOTT, (908) 532-4304

HCLOS

CONTRACT OPPORTUNITY

TITLE: SHORT RANGE WIDE BAND RADIO (SRWBR)

OBJECTIVE:

- REPLACEMENT FOR EXISTING SHORT RANGE WIDE BAND RADIO AT EAC
- INCREASED DATA TRANSMISSION CAPACITY FOR DOWN THE HILL RADIO LINKS AT EAC

PROPOSED CONTRACT TYPE: PRODUCTION, FIRM FIXED PRICE (FFP)

KEY MILESTONES:

- | | |
|------------------------------|----------------|
| - DRAFT PRODUCT SPEC RELEASE | 1QFY98 |
| - RFP RELEASE | 4QFY98 |
| - CONTRACT AWARD | 3QFY99 |
| - DELIVERY | 1QFY01- 4QFY10 |
| - FIELDING | 1QFY02- 4QFY12 |

ESTIMATED VALUE: \$20M - \$30M

TECH POC / TEL #: KENNETH CHANEY, (908) 532-3525

CONTRACT POC / TEL #: MADONNA SOUTHCOTT, (908) 532-4304



NOTES

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DIR, CECOM RDEC**

**MR. EDWARD G. ELGART
DIR, CECOM ACQUISITION CENTER**

**MR. EDWARD T. BAIR
DEP, PEO IEW**

**MR. THOMAS J. MICHELLI
DIR, ISMA**

**MR. ROBERT R. LEHNES
DPEO, COMM SYS
PEO C3S**

**MR. ANTHONY A. LaPLACA
ACT DIR, CECOM LRC**

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SFAE-IEW-NV-LOG
Fort Belvoir, Virginia 22060-5086
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AMSEL-LC-LEO-E-ED
Fort Monmouth, New Jersey 07703
(908) 532-2224

MR. GIUSEPPE SGROI
HQ, US Army Communications-Electronics Command
AMSEL-LC-LEO-E-EP
Fort Monmouth, New Jersey 07703
(908) 532-2810



NOTES

HEADQUARTERS, U. S. ARMY COM FORT MONM

DEPUTY TO
THE COMMANDING
GENERAL

PROGRAM EXECUTIVE OFFICES

PROGRAM EXECUTIVE
OFFICE
INTELLIGENCE
AND ELECTRONIC
WARFARE (IEW)

PROJECT
OFFICE
JOINT
PRECISION
STRIKE DEMO
(JPSCD)

OFFICE OF
THE PROJECT
MANAGER
COMBAT
ID

OFFICE OF THE
PROJECT MANAGER
JOINT SURVEILLANCE
TARGET ATTACK
RADAR SYSTEMS

OFFICE OF THE
PROJECT MANAGER
NIGHT VISION
RECONNAISSANCE
SURVEILLANCE
TARGET ACQUISITION

OFFICE OF THE
PROJECT MANAGER
SIGNALS
WARFARE

OFFICE OF
THE PROJECT
MANAGER
PREFENDER

OFFICE OF THE
PROJECT MANAGER
FORWARD AREA
AIR DEFENSE/
GROUND BASED
SENSOR (FAAD/GBS)

OFFICE OF THE
PROJECT MANAGER
INFORMATION
WARFARE

PROGRAM EXECUTIVE
OFFICE
COMMAND, CONTROL
AND
COMMUNICATIONS
SYSTEMS (C3S)

OFFICE OF
THE
PROJECT MANAGER
MILSTAR
(ARMY)

OFFICE OF
THE
PROJECT MANAGER
OPERATION TACTICAL
DATA SYSTEMS
(OPTADS)

OFFICE OF THE
PROJECT DIRECTOR
COUNTER NARCOTIC
COMMAND
MANAGEMENT
SYSTEMS

OFFICE OF
THE PROJECT
MANAGER
SATELLITE
COMMUNICATION
(SATCOM)

OFFICE OF THE
PROJECT MANAGER
STRATEGIC THEATER
C2 SYSTEMS
(STCCS)

OFFICE OF THE
PROJECT MANAGER
TACTICAL RADIO
COMMUNICATION
SYSTEMS
(TRCS)

OFFICE OF THE
PROJECT DIRECTOR
COMBAT TERRAIN
INFORMATION
SYSTEMS
(CTIS)

OFFICE OF THE
PROJECT MANAGER
AIR DEFENSE
COMMAND &
CONTROL SYSTEMS
(ADCCS)

OFFICE OF THE
PROJECT
MANAGER
APPLIQUE

OFFICE OF
THE PROJECT
MANAGER
COMMON
HARDWARE
SYSTEMS (CHS)

OFFICE OF THE
PROJECT MANAGER
FIELD ARTILLERY
TACTICAL DATA
SYSTEMS
(FATDS)

OFFICE OF THE
PROJECT MANAGER
GLOBAL
POSITIONING
SYSTEMS
(GPS)

OFFICE OF THE
PROJECT MANAGER
INTELLIGENCE
FUSION

OFFICE OF THE
PROJECT MANAGER
JOINT TACTICAL
AREA
COMMUNICATIONS
SYSTEMS (JTACS)

OFFICE OF THE
PROJECT DIRECTOR
INTEGRATED
METEOROLOGICAL
SYSTEMS

OFFICE OF THE
DIRECTOR
RESEARCH
DEVELOPMENT AND
ENGINEERING CENTER

ADVANCED SYSTEMS
DIRECTORATE

INTELLIGENCE
AND ELECTRONIC
WARFARE
DIRECTORATE
VINT HILL FARMS

COMMAND
CONTROL AND
SYSTEM
INTEGRATION
DIRECTORATE

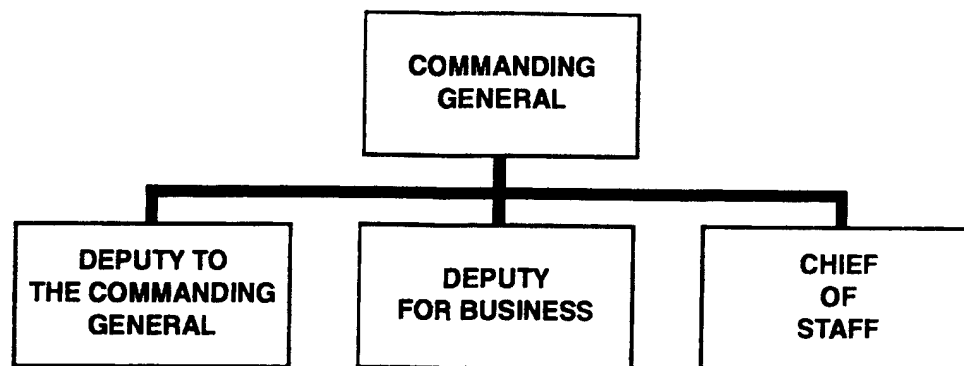
NIGHT VISION
AND ELECTRONIC
SENSORS
DIRECTORATE
FL BELVOIR

TEST AND
EVALUATION
DIRECTORATE

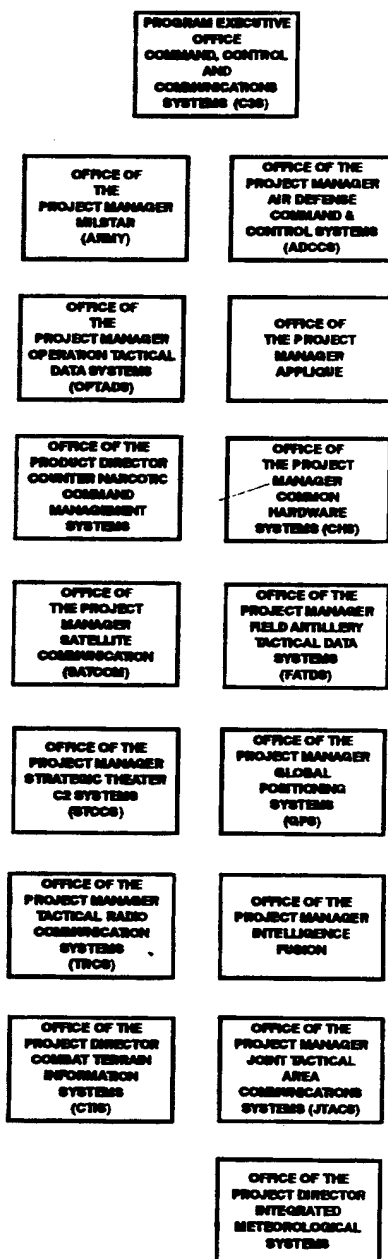
SOFTWARE
ENGINEERING
DIRECTORATE

SPACE
AND
TERRESTRIAL
COMMUNICATIONS
DIRECTORATE

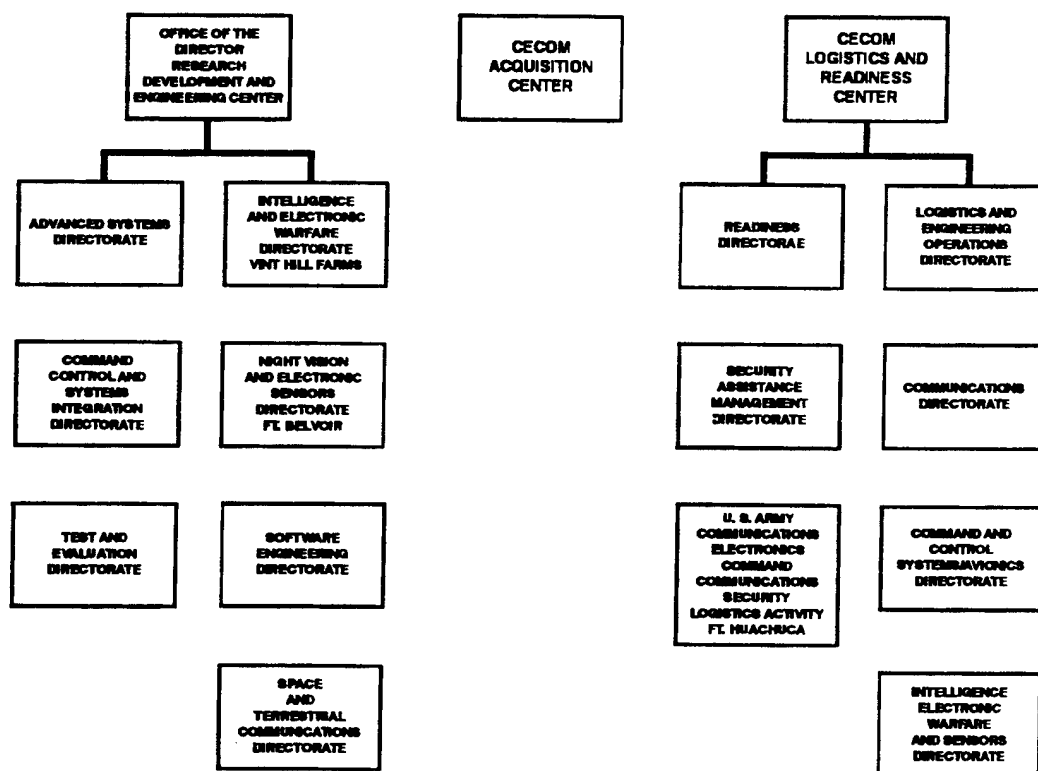
HEADQUARTERS, U. S. ARMY COMMUNICATIONS-ELECTRON FORT MONMOUTH, NEW JERSEY



EXECUTIVE OFFICES



CENTERS



COMMUNICATIONS-ELECTRONICS COMMAND

FORT MONMOUTH, NEW JERSEY

COMMANDING
GENERAL

DEPUTY
BUSINESS

CHIEF
OF
STAFF

CENTERS

CECOM
ACQUISITION
CENTER

CECOM
LOGISTICS AND
READINESS
CENTER

READINESS
DIRECTORATE

LOGISTICS AND
ENGINEERING
OPERATIONS
DIRECTORATE

SECURITY
ASSISTANCE
MANAGEMENT
DIRECTORATE

COMMUNICATIONS
DIRECTORATE

U. S. ARMY
COMMUNICATIONS
ELECTRONICS
COMMAND
COMMUNICATIONS
SECURITY
LOGISTICS ACTIVITY
FT. MONMOUTH

COMMAND AND
CONTROL
SYSTEMS/AVIONICS
DIRECTORATE

INTELLIGENCE
ELECTRONIC
WARFARE
AND SENSORS
DIRECTORATE

STAFF

RESOURCE
MANAGEMENT
DIRECTORATE

LEGAL
OFFICE

PROGRAM ANALYSIS
AND EVALUATION
DIRECTORATE

PERSONNEL
AND
TRAINING
DIRECTORATE

CECOM
SAFETY
OFFICE

INTELLIGENCE AND
INFORMATION
SECURITY
DIRECTORATE

DIRECTORATE
FOR CORPORATE
INFORMATION

COMPETITION
MANAGEMENT
OFFICE

SMALL AND
DISADVANTAGED
BUSINESS UTILIZATION
OFFICE

EQUAL
EMPLOYMENT
OPPORTUNITY
OFFICE

INTERNAL REVIEW
AND
AUDIT COMPLIANCE
OFFICE

INSPECTOR
GENERAL

PUBLIC AFFAIRS
OFFICE

CECOM
CHAPLAIN

TOTAL ARMY
QUALITY
OFFICE

GARRISONS

U. S. ARMY
GARRISON
FORT MONMOUTH

U. S. ARMY
GARRISON
VINT HILL

RESIDENT ACTIVITIES

PROGRAM MANAGER
AIS/USA/ISMA

DEFENSE ACCOUNTING
OFFICE

U. S. ARMY MEDICAL
DEPT ACTIVITY

U. S. ARMY RESEARCH
LABORATORY
PHYSICAL SCIENCES
DIRECTORATE

DEFENSE INFORMATION
SYSTEM AGENCY
JOINT INTEROPERABILITY
AND ENGINEERING
ORGANIZATION

U. S. ARMY DENTAL
CLINIC COMMAND

U. S. ARMY AUDIT
AGENCY

DEFENSE INVESTIGATIVE
SERVICE

U. S. MILITARY
PREP SCHOOL

FORT MONMOUTH
RESIDENT ACTIVITY

DEFENSE PRINTING
SERVICE

54th ORDNANCE
DETACHMENT

902nd MILITARY
INTELLIGENCE
DETACHMENT